

=> d que l14

L1 39113 SEA FILE=REGISTRY ABB=ON PLU=ON OC5/ES AND NR>1 AND O>5 AND
S/ELS AND N/ELS
L9 STR

Hy~O~Hy~O~Hy~O~Hy
1 2 3 4 5 6 7

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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ECOUNT IS E5 C E1 O AT 3

ECOUNT IS E5 C E1 O AT 5

ECOUNT IS E5 C E1 O AT 7

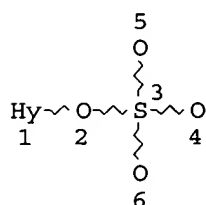
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RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L11 STR



NODE ATTRIBUTES:

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CONNECT IS E1 RC AT 5

CONNECT IS E1 RC AT 6

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E5 C E1 O AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L13 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY SAT AT 4

GGCAT IS MCY SAT AT 6

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E5 C E1 O AT 4

ECOUNT IS E5 C E1 O AT 6

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L14 488 SEA FILE=REGISTRY SUB=L1 SSS FUL L9 AND L11 AND L13

=> d 114 ide libb 300-330

← only 30 hits
printed
- contact
me if
you need
more.

L14 ANSWER 300 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175890-65-0 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-[13,29-dioxo-29-[[4-[1-oxo-19-
[[2,3,6-tri-O-sulfo-4-O-(2,3,4,6-tetra-O-sulfo-.beta.-D-glucopyranosyl)-
.beta.-D-glucopyranosyl]oxy]-5,8,11,14,17-pentaoxa-2-azanonadec-1-
yl]phenyl]amino]-3,6,9,15,18,21,24-heptaosa-27-thia-12-azanonacos-1-yl]-
2,3-di-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-
methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-
.alpha.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-.alpha.-L-
idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate) (9CI) (CA
INDEX NAME)

OTHER NAMES:

CN Org 36764

FS STEREOSEARCH

MF C88 H149 N3 O96 S15

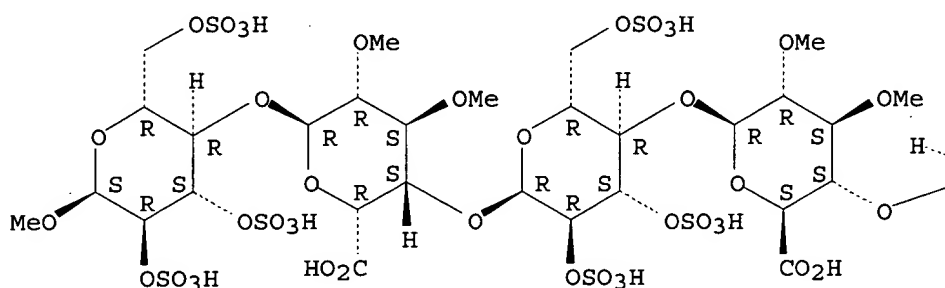
CI COM

SR CA

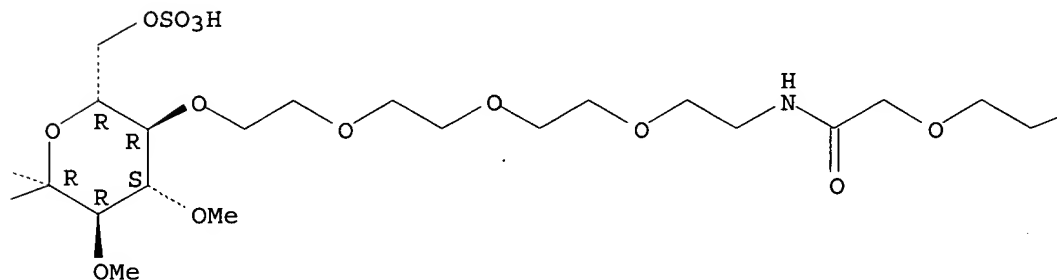
LC STN Files: BIOSIS, CA, CAPLUS

Absolute stereochemistry.

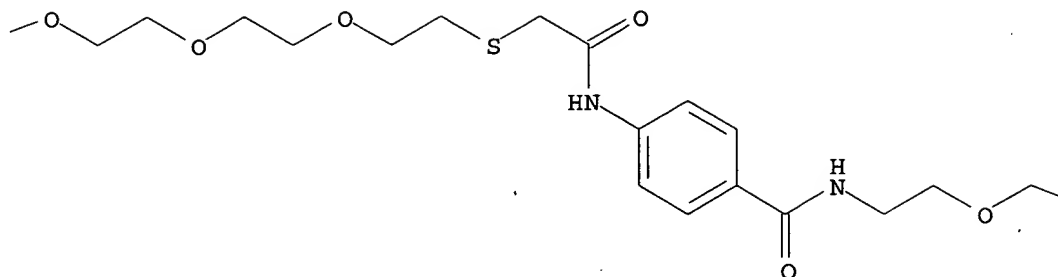
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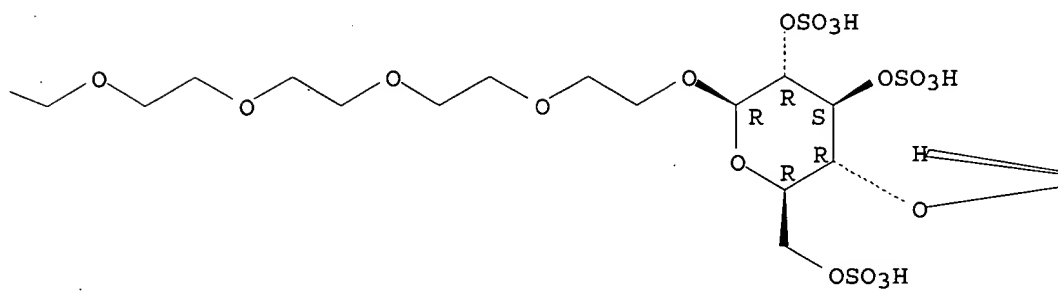
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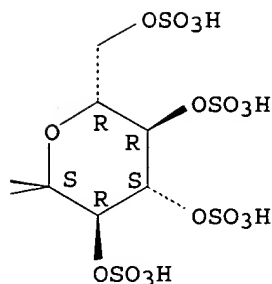
PAGE 1-C



PAGE 1-D



PAGE 1-E



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 134:65984 CA
TITLE: Pre-clinical pharmacological profile of the novel glycoconjugate Org 36764 with both factor Xa and thrombin (IIa) inhibitory activities
AUTHOR(S): Vogel, Gerard M. T.; Van Amsterdam, Ronald G. M.; Van Dinther, Theo G.; Tromp, Marijke; Meuleman, Dirk G.
CORPORATE SOURCE: Scientific Development Group, N.V. Organon, Oss, 5340 BH, Neth.
SOURCE: Thrombosis and Haemostasis (2000), 84(4), 611-620
CODEN: THHADQ; ISSN: 0340-6245
PUBLISHER: F. K. Schattauer Verlagsgesellschaft mbH
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

ACCESSION NUMBER: 132:3518 CA
TITLE: Synthesis of heparin-like antithrombotics having perphosphorylated thrombin binding domains
AUTHOR(S): Buijsman, R. C.; Basten, J. E. M.; Dreef-Tromp, C. M.; van der Marel, G. A.; van Boeckel, C. A. A.; van Boom, J. H.
CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden, 2300 RA, Neth.
SOURCE: Bioorganic & Medicinal Chemistry (1999), 7(9), 1881-1890
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal

LANGUAGE: English.
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

ACCESSION NUMBER: 129:109294 CA
 TITLE: In vitro evaluation of synthetic heparin-like
 conjugates comprising different thrombin binding
 domains
 AUTHOR(S): Basten, J. E. M.; Dreef-Tromp, C. M.; De Wijs, B.; Van
 Boeckel, C. A. A.
 CORPORATE SOURCE: N.V. Organon Scientific Development Group, Oss, 5340
 BH, Neth.
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1998),
 8(10), 1201-1206
 CODEN: BMCLE8; ISSN: 0960-894X
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 4

ACCESSION NUMBER: 124:290100 CA
 TITLE: Synthesis of tailor-made glycoconjugates showing AT
 III-mediated inhibition of blood coagulation factors
 XA and thrombin
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven,
 Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van
 Boeckel, Constant A. A.
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH,
 Neth.
 SOURCE: Angewandte Chemie, International Edition in English
 (1996), 35(3), 331-33
 CODEN: ACIEAY; ISSN: 0570-0833
 PUBLISHER: VCH
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 301 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175890-64-9 REGISTRY

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 2,3,4,6-tetra-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-
 sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-sulfo-.beta.-D-
 glucopyranosyl)oxy]-5,8,11,14,17-pentaoxa-2-azanonadec-1-yl]phenyl]amino]-
 2,3,6,9,15,18,21,24-heptaoxa-27-thia-12-azanonacos-1-yl]-2,3-di-O-methyl-6-
 O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-
 glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-
 glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-
 (1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C94 H159 N3 O110 S18

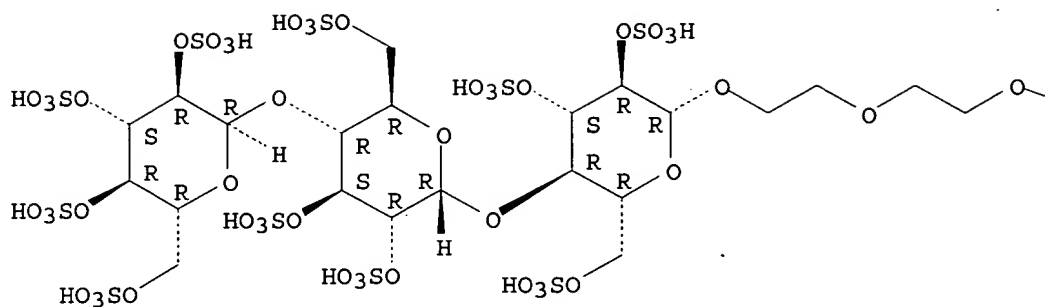
CI COM

SR CA

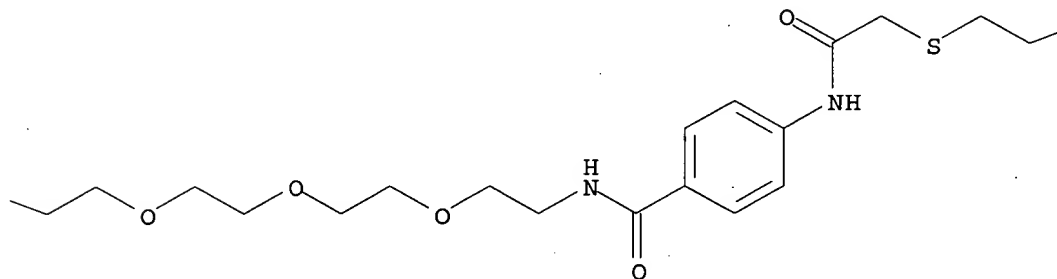
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

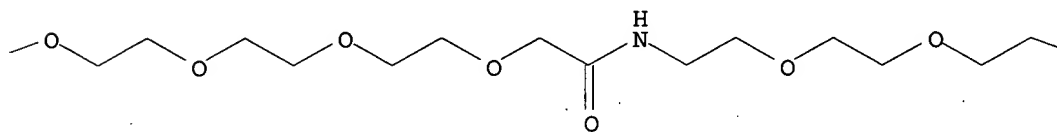
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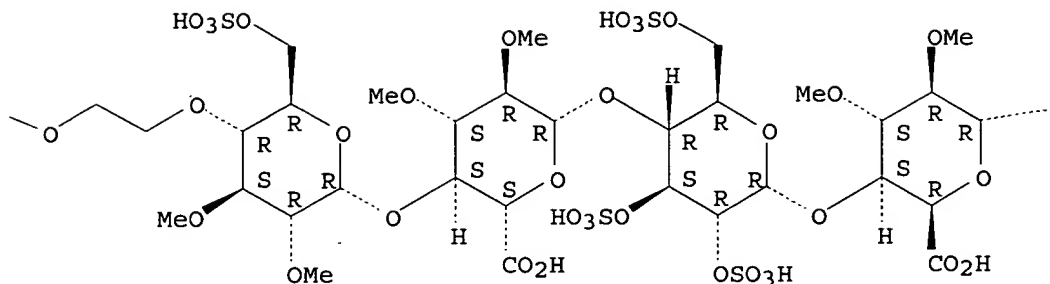
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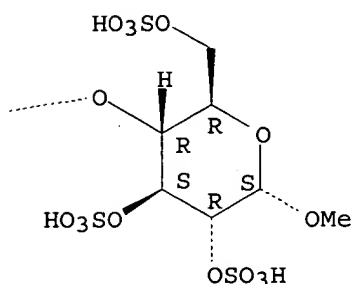
PAGE 1-C



PAGE 1-D



PAGE 1-E



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 132:3518 CA
TITLE: Synthesis of heparin-like antithrombotics having perphosphorylated thrombin binding domains
AUTHOR(S): Buijsman, R. C.; Basten, J. E. M.; Dreef-Tromp, C. M.; van der Marel, G. A.; van Boeckel, C. A. A.; van Boom, J. H.
CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden, 2300 RA, Neth.
SOURCE: Bioorganic & Medicinal Chemistry (1999), 7(9), 1881-1890
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

ACCESSION NUMBER: 129:109294 CA
TITLE: In vitro evaluation of synthetic heparin-like conjugates comprising different thrombin binding

domains
 AUTHOR(S): Basten, J. E. M.; Dreef-Tromp, C. M.; De Wijs, B.; Van Boeckel, C. A. A.
 CORPORATE SOURCE: N.V. Organon Scientific Development Group, Oss, 5340 BH, Neth.
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1998), 8(10), 1201-1206
 CODEN: BMCLE8; ISSN: 0960-894X
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

ACCESSION NUMBER: 124:290100 CA
 TITLE: Synthesis of tailor-made glycoconjugates showing AT III-mediated inhibition of blood coagulation factors XA and thrombin
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven, Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van Boeckel, Constant A. A.
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH, Neth.
 SOURCE: Angewandte Chemie, International Edition in English (1996), 35(3), 331-33
 CODEN: ACIEAY; ISSN: 0570-0833
 PUBLISHER: VCH
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 302 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175722-97-1 REGISTRY

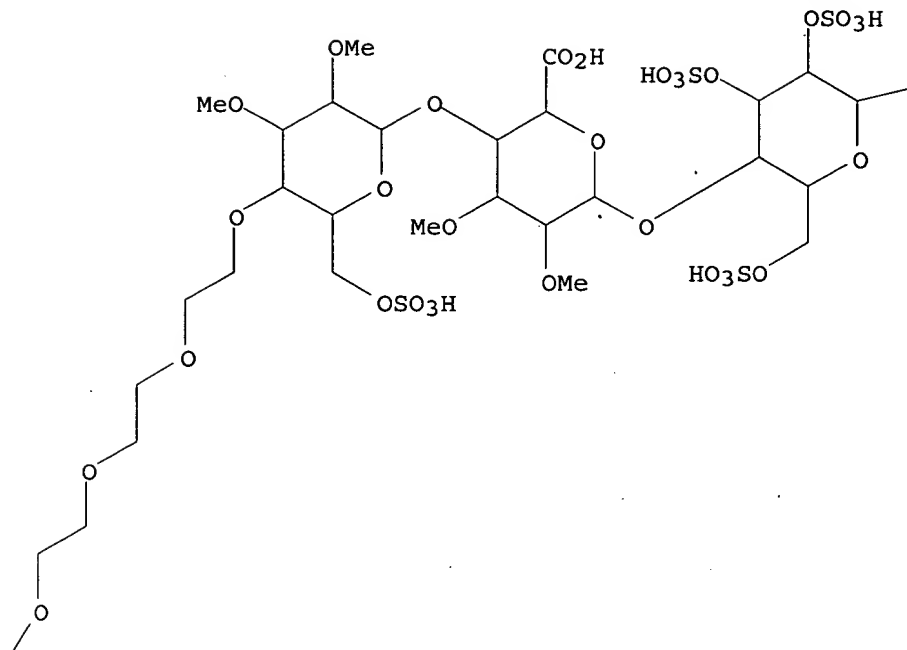
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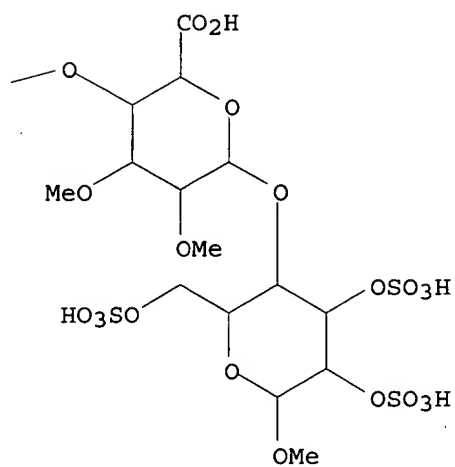
SR CA

LC STN Files: CA, CAPLUS

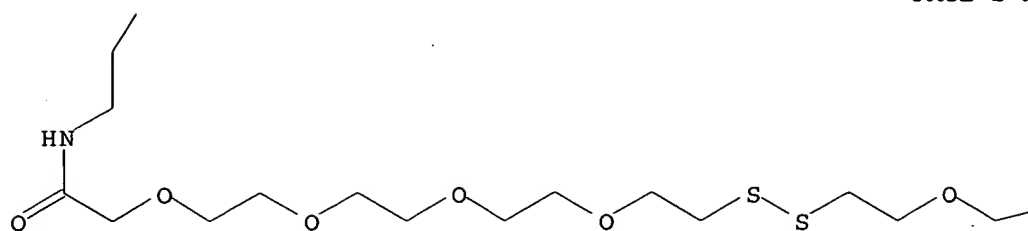
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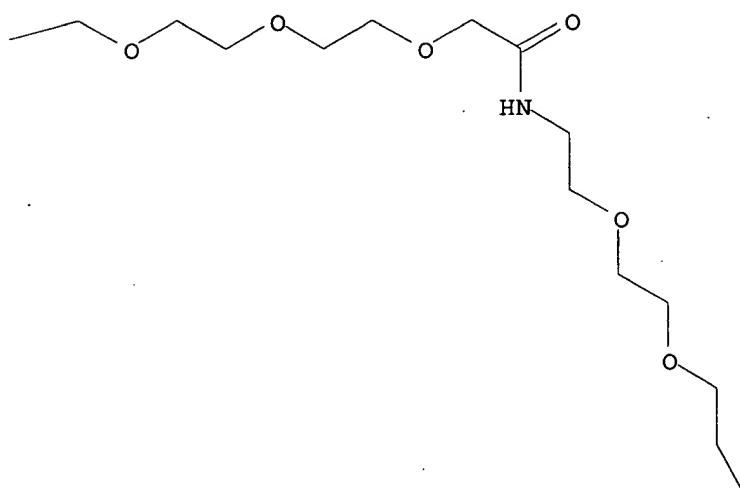
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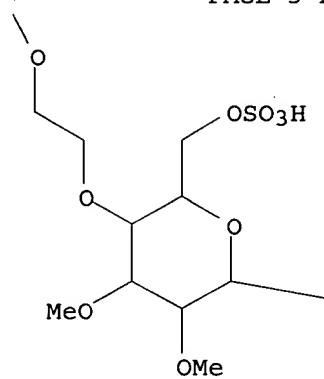
PAGE 2-A



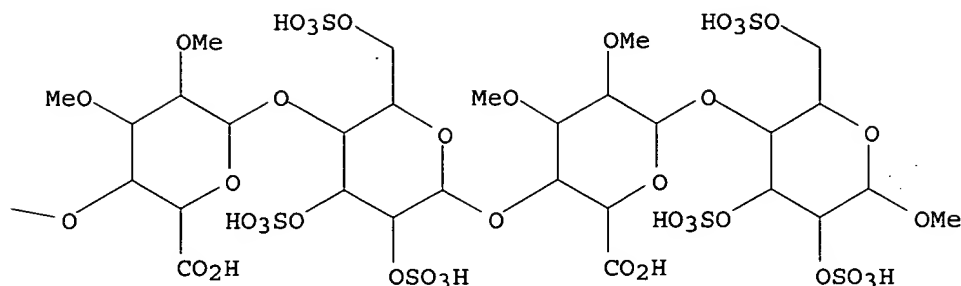
PAGE 2-B



PAGE 3-B



PAGE 3-C



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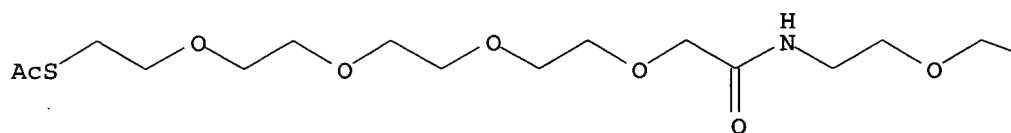
REFERENCE 1

ACCESSION NUMBER: 124:290100 CA
 TITLE: Synthesis of tailor-made glycoconjugates showing AT
 III-mediated inhibition of blood coagulation factors
 XA and thrombin
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven,
 Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van
 Boeckel, Constant A. A.
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH,
 Neth.
 SOURCE: Angewandte Chemie, International Edition in English
 (1996), 35(3), 331-33
 CODEN: ACIEAY; ISSN: 0570-0833
 PUBLISHER: VCH
 DOCUMENT TYPE: Journal
 LANGUAGE: English

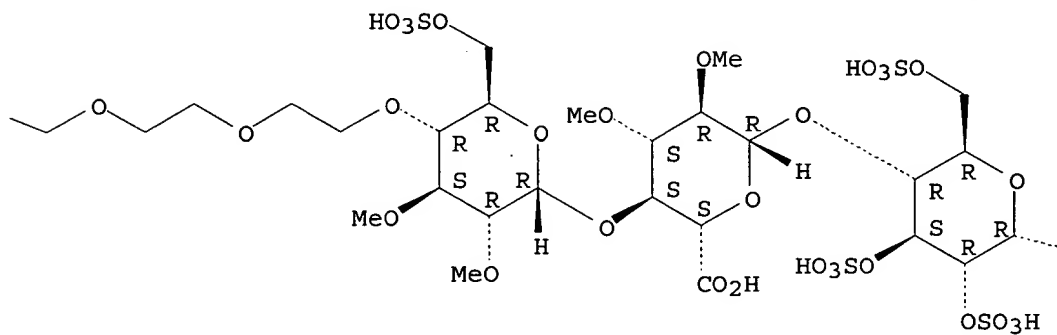
L14 ANSWER 303 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 175722-94-8 REGISTRY
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 glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-
 (1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-
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 2,3,6-tris(hydrogen sulfate) (9CI) (CA INDEX NAME)
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 CI COM
 SR CA
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

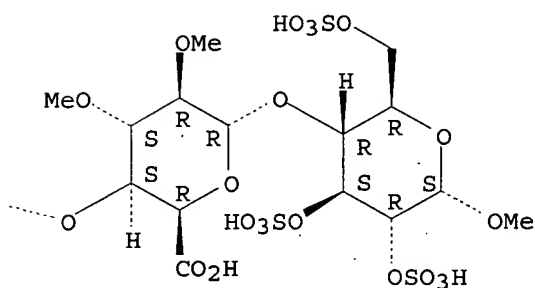
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PAGE 1-B



PAGE 1-C



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 132:3518 CA
 TITLE: Synthesis of heparin-like antithrombotics having
 perphosphorylated thrombin binding domains
 AUTHOR(S): Buijsman, R. C.; Basten, J. E. M.; Dreef-Tromp, C. M.;
 van der Marel, G. A.; van Boeckel, C. A. A.; van Boom,
 J. H.
 CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories,

SOURCE: Leiden, 2300 RA, Neth.
 Bioorganic & Medicinal Chemistry (1999), 7(9),
 1881-1890
 CODEN: BMECEP; ISSN: 0968-0896
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

ACCESSION NUMBER: 129:109294 CA
 TITLE: In vitro evaluation of synthetic heparin-like
 conjugates comprising different thrombin binding
 domains
 AUTHOR(S): Basten, J. E. M.; Dreef-Tromp, C. M.; De Wijs, B.; Van
 Boeckel, C. A. A.
 CORPORATE SOURCE: N.V. Organon Scientific Development Group, Oss, 5340
 BH, Neth.
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1998),
 8(10), 1201-1206
 CODEN: BMCLE8; ISSN: 0960-894X
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

ACCESSION NUMBER: 124:290100 CA
 TITLE: Synthesis of tailor-made glycoconjugates showing AT
 III-mediated inhibition of blood coagulation factors
 XA and thrombin
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven,
 Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van
 Boeckel, Constant A. A.
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH,
 Neth.
 SOURCE: Angewandte Chemie, International Edition in English
 (1996), 35(3), 331-33
 CODEN: ACIEAY; ISSN: 0570-0833
 PUBLISHER: VCH
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 304 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175722-93-7 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13,28-dioxo-12-sulfo-
 3,6,9,15,18,21,24-heptaaxa-27-thia-12-azanonacos-1-yl)-2,3-di-O-methyl-6-O-
 sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-
 glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-
 glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-
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FS STEREOSEARCH

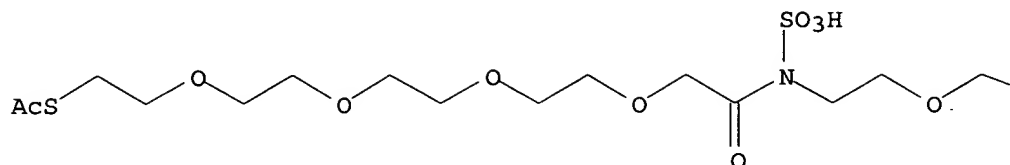
MF C57 H99 N O61 S9

SR CA

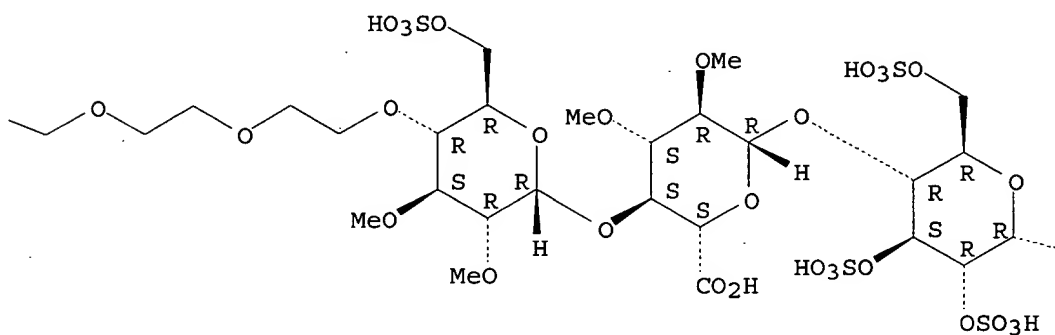
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

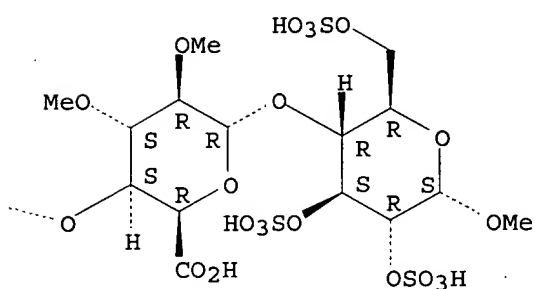
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PAGE 1-B



PAGE 1-C



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 124:290100 CA
 TITLE: Synthesis of tailor-made glycoconjugates showing AT
 III-mediated inhibition of blood coagulation factors
 XA and thrombin

AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven, Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van Boeckel, Constant A. A.
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH, Neth.
 SOURCE: Angewandte Chemie, International Edition in English (1996), 35(3), 331-33
 CODEN: ACIEAY; ISSN: 0570-0833
 PUBLISHER: VCH
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 305 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174828-77-4 REGISTRY

CN D-Glucose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

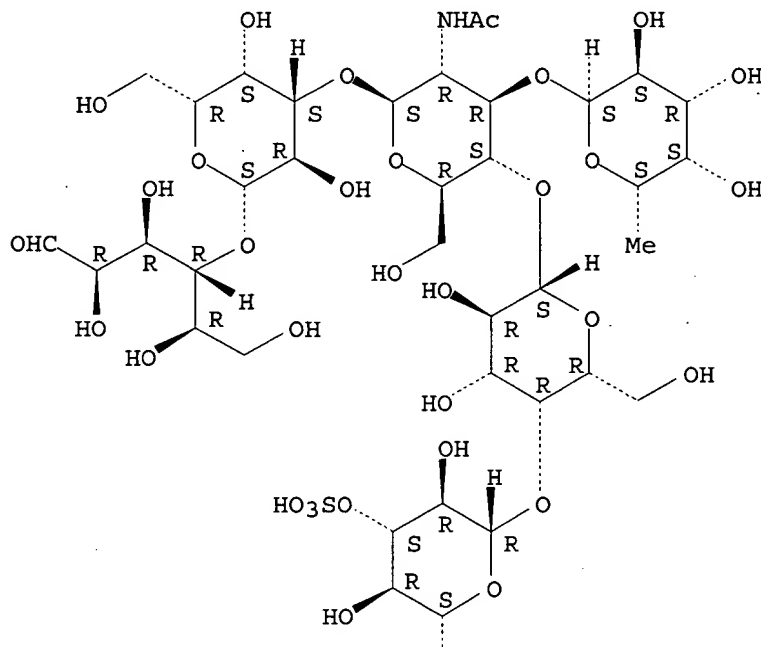
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SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

CO₂H

PAGE 2-A

CO₂H

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 124:261616 CA
TITLE: Synthesis of sialic acid-contg. oligosaccharide
glycopeptides as receptors and enzyme inhibitors
INVENTOR(S): Monsigny, Michel; Roche, Annie-Claude; Sdiqui, Nadia;
Mayer, Roger
PATENT ASSIGNEE(S): I.D.M. Immuno-Designed Molecules, Indonesia
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|----------|
| WO 9600229 | A1 | 19960104 | WO 1995-FR790 | 19950615 |
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| RW: | KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| FR 2721612 | A1 | 19951229 | FR 1994-7738 | 19940623 |
| FR 2721612 | B1 | 19960809 | | |
| CA 2192073 | AA | 19960104 | CA 1995-2192073 | 19950615 |
| AU 9527962 | A1 | 19960119 | AU 1995-27962 | 19950615 |
| AU 705200 | B2 | 19990520 | | |
| EP 766689 | A1 | 19970409 | EP 1995-923392 | 19950615 |
| EP 766689 | B1 | 19991020 | | |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | |
| JP 10502068 | T2 | 19980224 | JP 1995-502856 | 19950615 |
| AT 185810 | E | 19991115 | AT 1995-923392 | 19950615 |
| US 6251858 | B1 | 20010626 | US 1996-591481 | 19960221 |
| PRIORITY APPLN. INFO.: | | | FR 1994-7738 | 19940623 |
| | | | WO 1995-FR790 | 19950615 |

L14 ANSWER 306 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

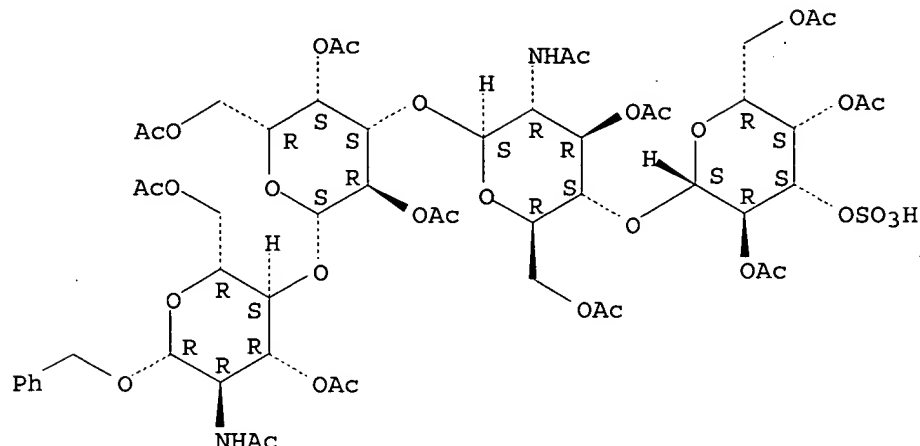
RN 174360-63-5 REGISTRY

CN .beta.-D-Glucopyranoside, phenylmethyl O-2,4,6-tri-O-acetyl-3-O-sulfo-
.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-di-O-acetyl-2-(acetylamino)-2-
deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-2,4,6-tri-O-acetyl-.beta.-D-
galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-, 3,6-diacetate
(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C55 H74 N2 O34 S
 SR CA
 LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

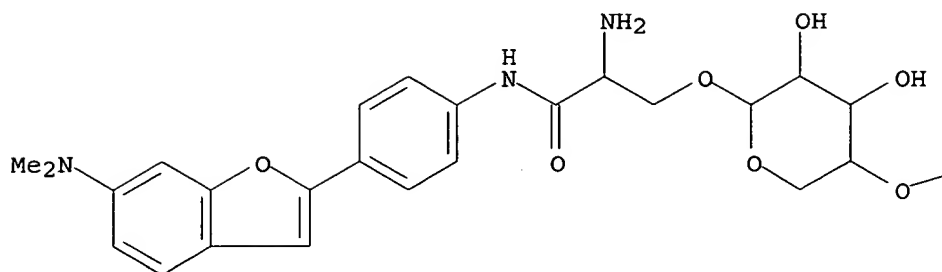
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

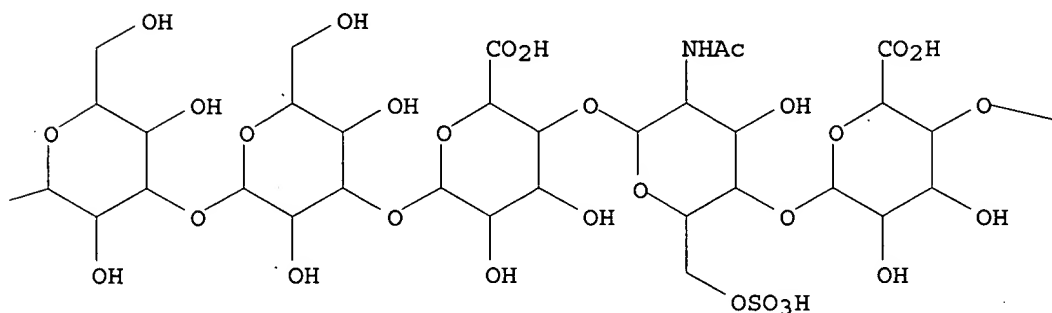
ACCESSION NUMBER: 124:202798 CA
 TITLE: Synthesis of precursors for the dimeric 3-O-SO₃Na
 LewisX and LewisA structures
 AUTHOR(S): Reddy, Gurijala V.; Jain, Rakesh K.; Locke, Robert D.;
 Matta, Khushi L.
 CORPORATE SOURCE: Dep. Gynecologic Oncology, Roswell Park Cancer Inst.,
 Buffalo, NY, 14263, USA
 SOURCE: Carbohydrate Research (1996), 280(2), 261-76
 CODEN: CRBRAT; ISSN: 0008-6215
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 307 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 174200-77-2 REGISTRY
 CN Propanamide, 2-amino-3-[[[O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-
 enopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.alpha.-D-
 glucopyranosyl-(1.fwdarw.4)-O-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-
 (acetylamino)-2-deoxy-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-
 .beta.-D-glucopyranuronosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-
 (1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-
 xylopyranosyl]oxy]-N-[4-[6-(dimethylamino)-2-benzofuranyl]phenyl]-, (S)-
 (9CI) (CA INDEX NAME)
 MF C70 H97 N5 O50 S2
 SR CA
 LC STN Files: CA, CAPLUS

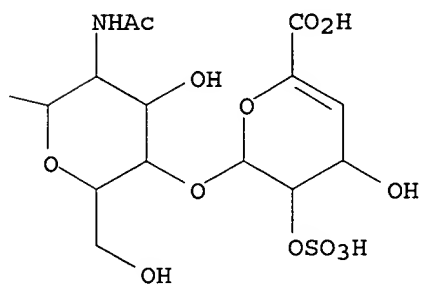
PAGE 1-A



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PAGE 1-C



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 124:197648 CA
 TITLE: Strategy for the sequence analysis of heparin
 AUTHOR(S): Liu, Jian; Desai, Umesh R.; Han, Xue-Jun; Toida,

CORPORATE SOURCE: Toshihiko; Linhardt, Robert J.
College Pharmacy, Univ. Iowa, Iowa City, IA, 52242,
USA
SOURCE: Glycobiology (1995), 5(8), 765-74
CODEN: GLYCE3; ISSN: 0959-6658
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

L14 ANSWER 308 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174200-76-1 REGISTRY

CN Propanamide, 2-amino-3-[[O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-xylopyranosyl]oxy]-N-[4-[6-(dimethylamino)-2-benzofuranyl]phenyl]-, (S)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

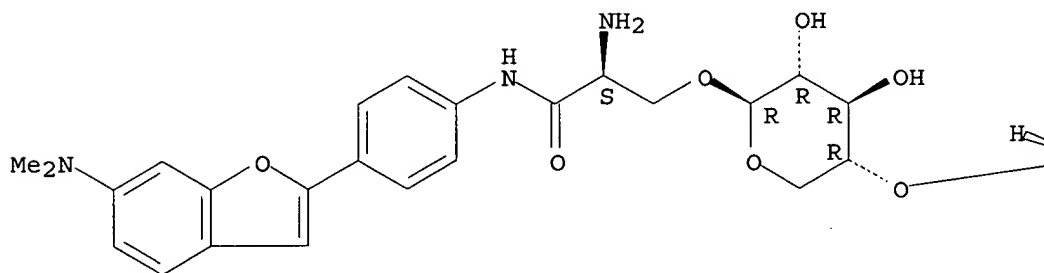
MF C42 H55 N3 O25 S

SR CA

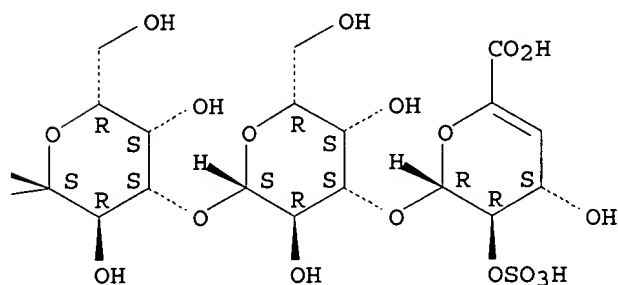
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 125:61288 CA
 TITLE: Method for removal of hexenuronic acid groups in
 cellulose pulp by heat treatment
 INVENTOR(S): Vuorinen, Tapani; Buchert, Johanna; Teleman, Anita;
 Tenkanen, Maija
 PATENT ASSIGNEE(S): A. Ahlstrom Corporation, Finland
 SOURCE: PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| WO 9612063 | A1 | 19960425 | WO 1995-FI566 | 19951012 |
| W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT | | | | |
| RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| FI 9404808 | A | 19960414 | FI 1994-4808 | 19941013 |
| CA 2160430 | AA | 19960414 | CA 1995-2160430 | 19951012 |
| AU 9536559 | A1 | 19960506 | AU 1995-36559 | 19951012 |
| EP 786029 | A1 | 19970730 | EP 1995-934164 | 19951012 |
| EP 786029 | B1 | 20000614 | | |
| R: DE, ES, PT, SE | | | | |
| CN 1168706 | A | 19971224 | CN 1995-196599 | 19951012 |
| CN 1075143 | B | 20011121 | | |
| JP 10508346 | T2 | 19980818 | JP 1995-512965 | 19951012 |
| RU 2126862 | C1 | 19990227 | RU 1997-107353 | 19951012 |
| ES 2147303 | T3 | 20000901 | ES 1995-934164 | 19951012 |
| PT 786029 | T | 20000929 | PT 1995-95934164 | 19951012 |
| SE 9503595 | A | 19960414 | SE 1995-3595 | 19951013 |
| SE 518080 | C2 | 20020820 | | |
| ZA 9508655 | A | 19960513 | ZA 1995-8655 | 19951013 |
| BR 9505211 | A | 19970916 | BR 1995-5211 | 19951117 |
| FI 9701508 | A | 19970410 | FI 1997-1508 | 19970410 |
| NO 9701682 | A | 19970611 | NO 1997-1682 | 19970411 |
| PRIORITY APPLN. INFO.: | | | FI 1994-4808 | 19941013 |
| | | | WO 1995-FI566 | 19951012 |

REFERENCE 2

ACCESSION NUMBER: 124:197648 CA
 TITLE: Strategy for the sequence analysis of heparin
 AUTHOR(S): Liu, Jian; Desai, Umesh R.; Han, Xue-Jun; Toida, Toshihiko; Linhardt, Robert J.
 CORPORATE SOURCE: College Pharmacy, Univ. Iowa, Iowa City, IA, 52242, USA
 SOURCE: Glycobiology (1995), 5(8), 765-74
 CODEN: GLYCE3; ISSN: 0959-6658
 PUBLISHER: Oxford University Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 309 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174176-02-4 REGISTRY

CN D-Glucose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-2-(sulfoamino)-, 6-(hydrogen sulfate) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C60 H95 N5 O95 S15

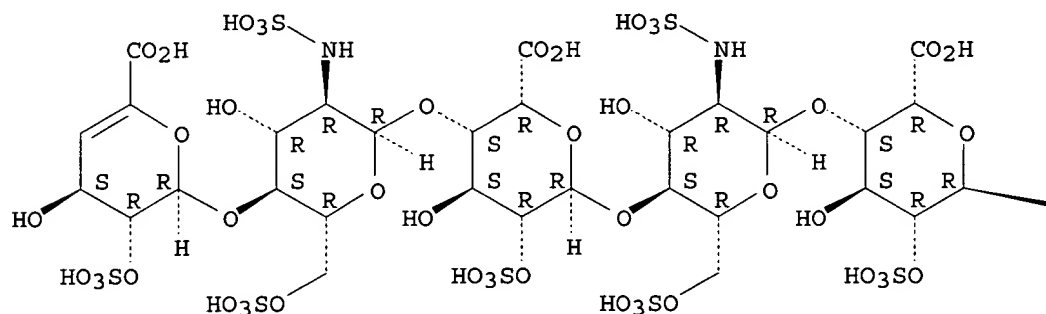
CI COM

SR CA

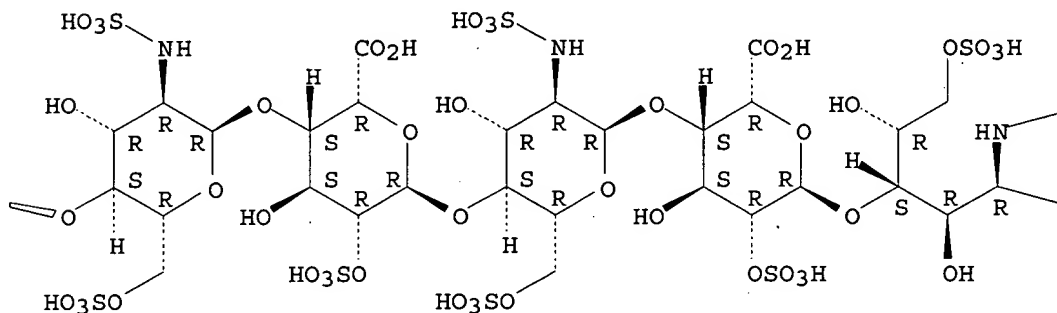
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



—SO₃H

—CHO

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 130:34904 CA
TITLE: Mass spectrometric evidence for the enzymic mechanism
of the depolymerization of heparin-like
glycosaminoglycans by heparinase II
AUTHOR(S): Rhomberg, Andrew J.; Shriver, Zachary; Biemann, Klaus;
Sasisekharan, Ram
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of
Technology, Cambridge, MA, 02139, USA
SOURCE: Proceedings of the National Academy of Sciences of the
United States of America (1998), 95(21), 12232-12237
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

ACCESSION NUMBER: 129:38324 CA
TITLE: Mass spectrometric and capillary electrophoretic
investigation of the enzymic degradation of
heparin-like glycosaminoglycans
AUTHOR(S): Rhomberg, Andrew J.; Ernst, Steffen; Sasisekharan,
Ram; Biemann, Klaus
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of
Technology, Cambridge, MA, 02139, USA
SOURCE: Proceedings of the National Academy of Sciences of the
United States of America (1998), 95(8), 4176-4181
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

ACCESSION NUMBER: 124:194326 CA
TITLE: A pharmaceutical composition comprising

INVENTOR(S): oligosaccharides binding to lipoprotein lipase
Oestergaard, Per Bjoern; Larnkjaer, Anni
PATENT ASSIGNEE(S): Den.
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9533468 | A1 | 19951214 | WO 1995-DK217 | 19950602 |
| W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN | | | | |
| RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9525609 | A1 | 19960104 | AU 1995-25609 | 19950602 |
| PRIORITY APPLN. INFO.: | | | DK 1994-637 | 19940606 |
| | | | WO 1995-DK217 | 19950602 |

L14 ANSWER 310 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174082-77-0 REGISTRY

CN D-Glucose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-2-deoxy-2-(sulfoamino)-, 6-(hydrogen sulfate) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

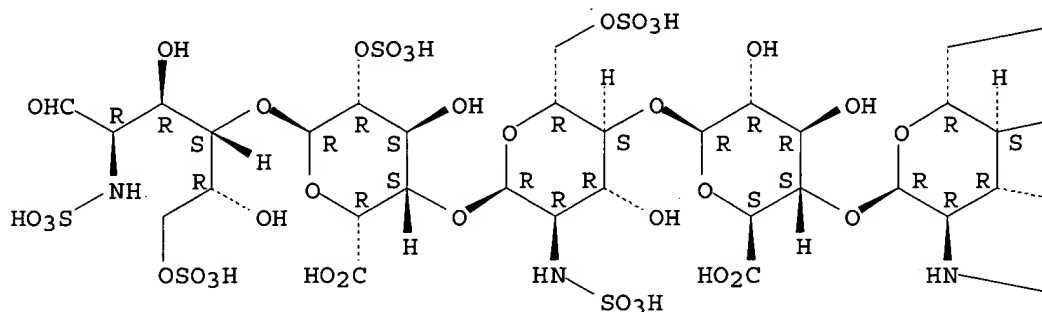
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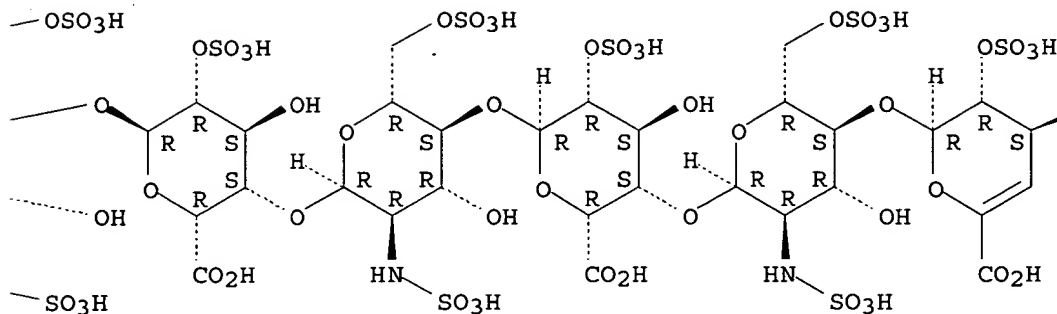
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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PAGE 1-C

OH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 129:117648 CA
 TITLE: Interaction of secretory leukocyte protease inhibitor with heparin inhibits proteases involved in asthma
 AUTHOR(S): Fath, Melissa A.; Wu, Xiaojun; Hileman, Ronald E.; Linhardt, Robert J.; Kashem, Mohammed A.; Nelson, Richard M.; Wright, Clifford D.; Abraham, William M.
 CORPORATE SOURCE: Division of Medicinal and Natural Products Chemistry, College of Pharmacy, University of Iowa, Iowa City, IA, 52242, USA
 SOURCE: Journal of Biological Chemistry (1998), 273(22), 13563-13569
 CODEN: JBCHA3; ISSN: 0021-9258
 PUBLISHER: American Society for Biochemistry and Molecular Biology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

ACCESSION NUMBER: 124:194326 CA
 TITLE: A pharmaceutical composition comprising oligosaccharides binding to lipoprotein lipase
 INVENTOR(S): Oestergaard, Per Bjoern; Larnkjaer, Anni

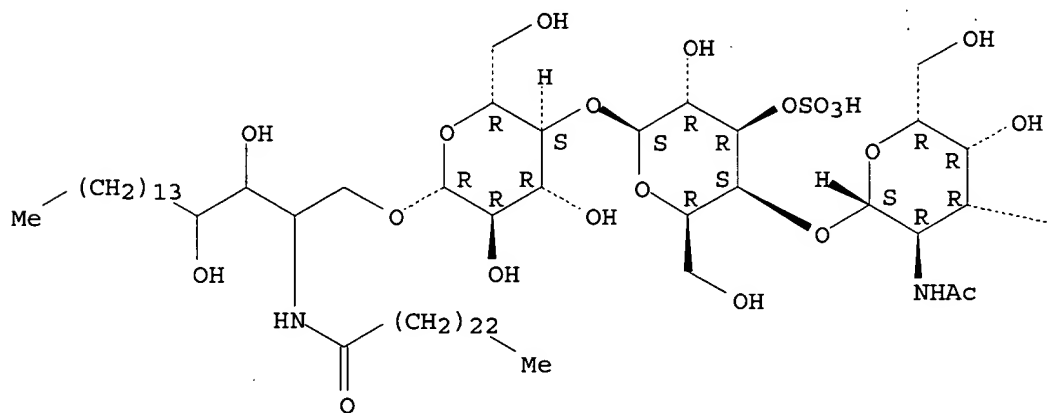
PATENT ASSIGNEE(S): Den.
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9533468 | A1 | 19951214 | WO 1995-DK217 | 19950602 |
| W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN | | | | |
| RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9525609 | A1 | 19960104 | AU 1995-25609 | 19950602 |
| PRIORITY APPLN. INFO.: | | | DK 1994-637 | 19940606 |
| | | | WO 1995-DK217 | 19950602 |

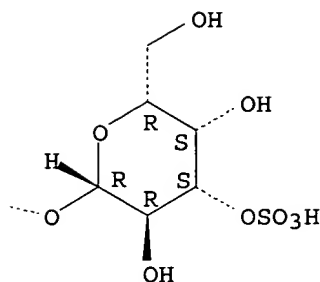
L14 ANSWER 311 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 171916-68-0 REGISTRY
 CN Tetracosanamide, N-[2,3-dihydroxy-1-[[[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]heptadecyl]- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C68 H128 N2 O30 S2
 SR CA
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

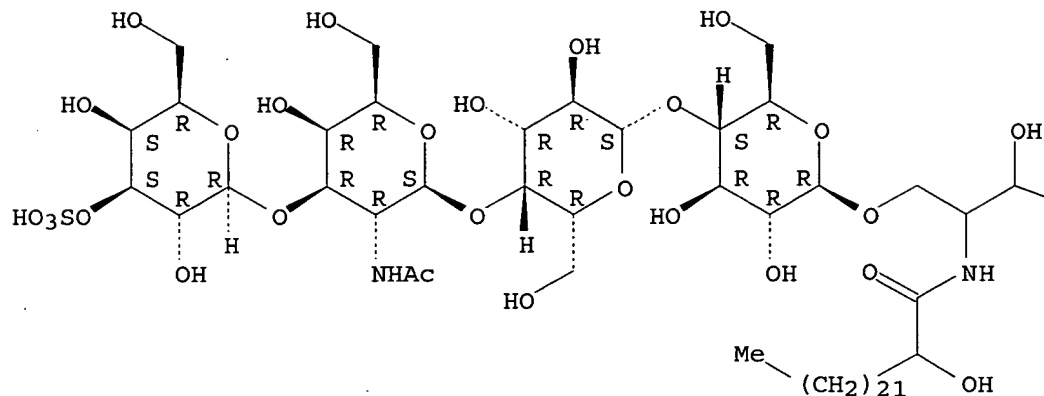
REFERENCE 1

ACCESSION NUMBER: 124:56454 CA
 TITLE: Structural analysis on mono- and bis-sulfated glycosphingolipids by negative liquid secondary ion mass spectrometry with high- and low-energy collision-induced dissociation
 AUTHOR(S): Tadano-Aritomi, Keiko; Kubo, Harumi; Ireland, Philip; Okuda, Masaru; Kasama, Takeshi; Handa, Shizuo; Ishizuka, Ineo
 CORPORATE SOURCE: Department of Biochemistry, Teikyo University School of Medicine, Tokyo, 173, Japan
 SOURCE: Carbohydrate Research (1995), 273(1), 41-52
 CODEN: CRBRAT; ISSN: 0008-6215
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

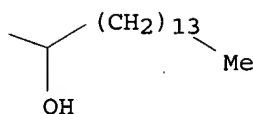
L14 ANSWER 312 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 171916-67-9 REGISTRY
 CN Tetracosanamide, N-[2,3-dihydroxy-1-[[[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]heptadecyl]-2-hydroxy- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C68 H128 N2 O28 S
 SR CA
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 124:56454 CA
 TITLE: Structural analysis on mono- and bis-sulfated glycosphingolipids by negative liquid secondary ion mass spectrometry with high- and low-energy collision-induced dissociation
 AUTHOR(S): Tadano-Aritomi, Keiko; Kubo, Harumi; Ireland, Philip; Okuda, Masaru; Kasama, Takeshi; Handa, Shizuo; Ishizuka, Ineo
 CORPORATE SOURCE: Department of Biochemistry, Teikyo University School of Medicine, Tokyo, 173, Japan
 SOURCE: Carbohydrate Research (1995), 273(1), 41-52
 CODEN: CRBRAT; ISSN: 0008-6215
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

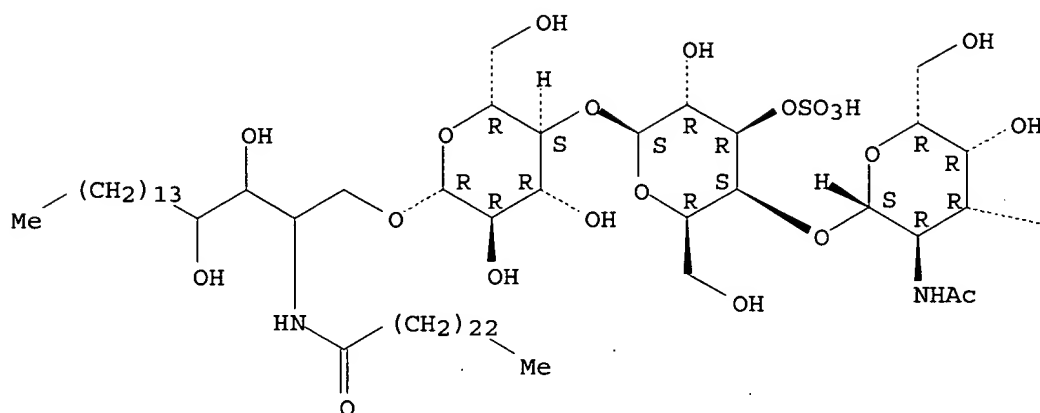
L14 ANSWER 313 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 171916-66-8 REGISTRY
 CN Tetracosanamide, N-[1-[[[O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-

.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy)methyl]-
2,3-dihydroxyheptadecyl]- (9CI) (CA INDEX NAME)

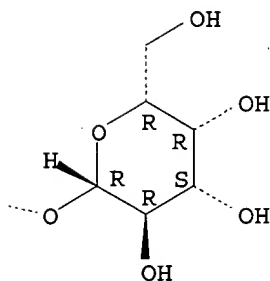
FS STEREOSEARCH
MF C68 H128 N2 O27 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

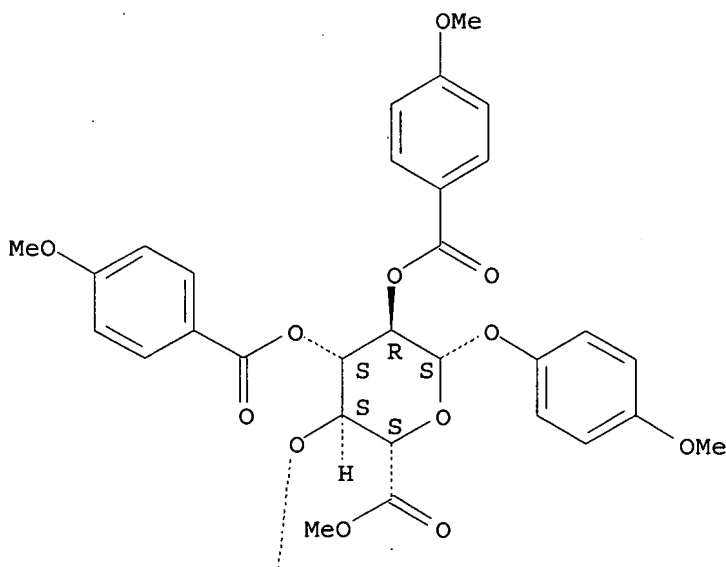
ACCESSION NUMBER: 124:56454 CA
TITLE: Structural analysis on mono- and bis-sulfated glycosphingolipids by negative liquid secondary ion mass spectrometry with high- and low-energy collision-induced dissociation
AUTHOR(S): Tadano-Aritomi, Keiko; Kubo, Harumi; Ireland, Philip; Okuda, Masaru; Kasama, Takeshi; Handa, Shizuo; Ishizuka, Ineo
CORPORATE SOURCE: Department of Biochemistry, Teikyo University School of Medicine, Tokyo, 173, Japan

SOURCE: Carbohydrate Research (1995), 273(1), 41-52
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

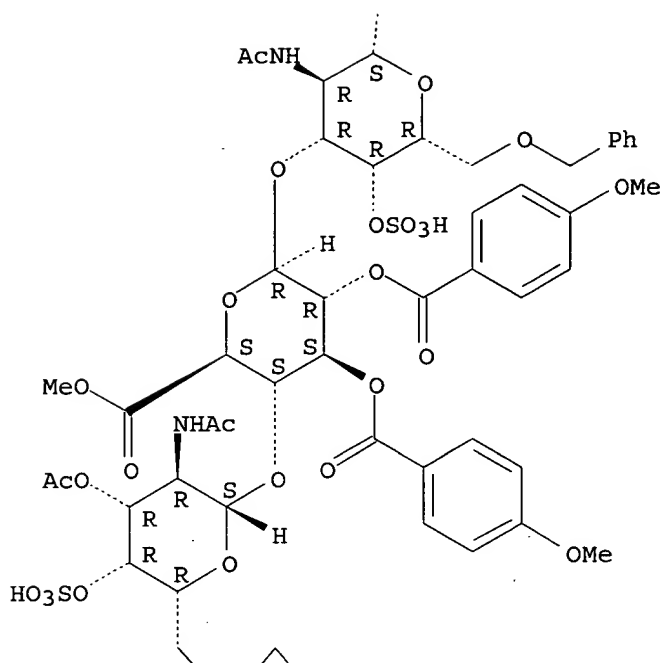
L14 ANSWER 314 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
RN 170796-62-0 REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, 4-methoxyphenyl O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,3-bis-O-(4-methoxybenzoyl)-6-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 6-methyl ester, 2,3-bis(4-methoxybenzoate), disodium salt (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C85 H92 N2 O39 S2 . 2 Na
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

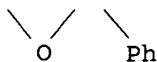
PAGE 1-A



PAGE 2-A



PAGE 3-A



● 2 Na

- 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:340605 CA
 TITLE: Synthetic studies on cell-surface glycans. 101. A regio- and stereoselective synthesis of 4-O-sulfated chondroitin di- and tetrasaccharides based on the strategy designed for the elongation of the repeating unit
 AUTHOR(S): Tamura, Jun-ichi; Neumann, Klaus W.; Ogawa, Tomoya
 CORPORATE SOURCE: Institute Physical Chemical Research, RIKEN, Saitama, 351-01, Japan
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1995), 5(13), 1351-4
 CODEN: BMCLE8; ISSN: 0960-894X
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

RN 170742-84-4 REGISTRY

CN Glycine, L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginyl-, compd. with O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-3,6-di-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-2-deoxy-2-(sulfoamino)-D-glucose 6-(hydrogen sulfate) (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

[illegible]

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C80 H152 N50 O21 . x C30 H51 N3 O49 S8

| SR | CA |
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LC STN Files: CA, CAPLUS

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

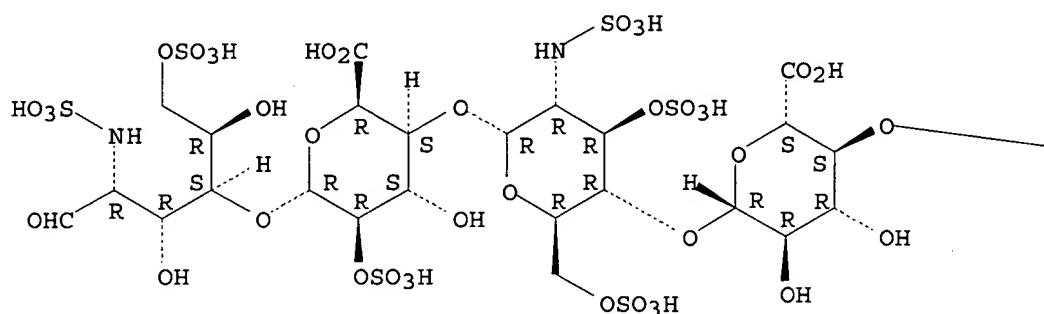
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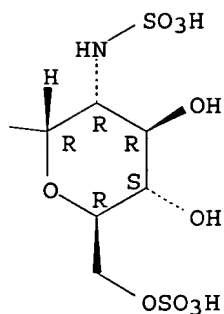
CMF C30 H51 N3 O49 S8

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CM 2

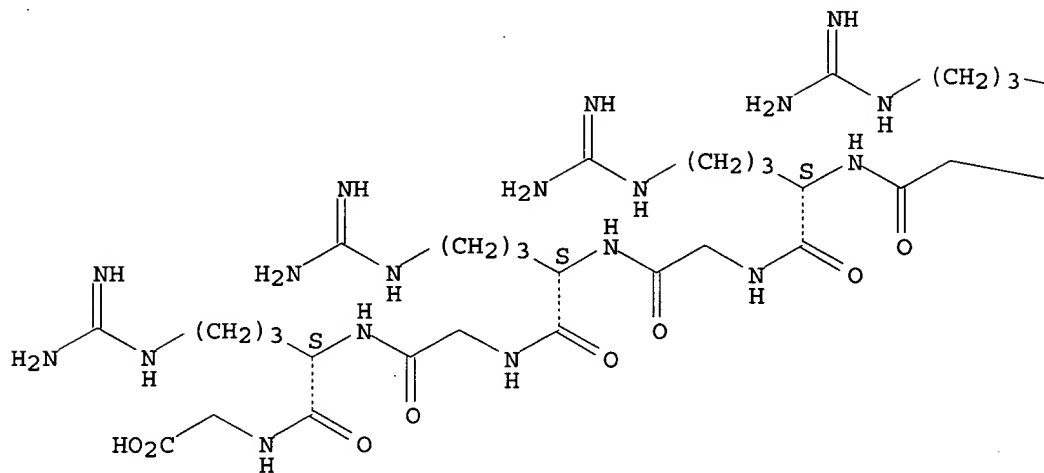
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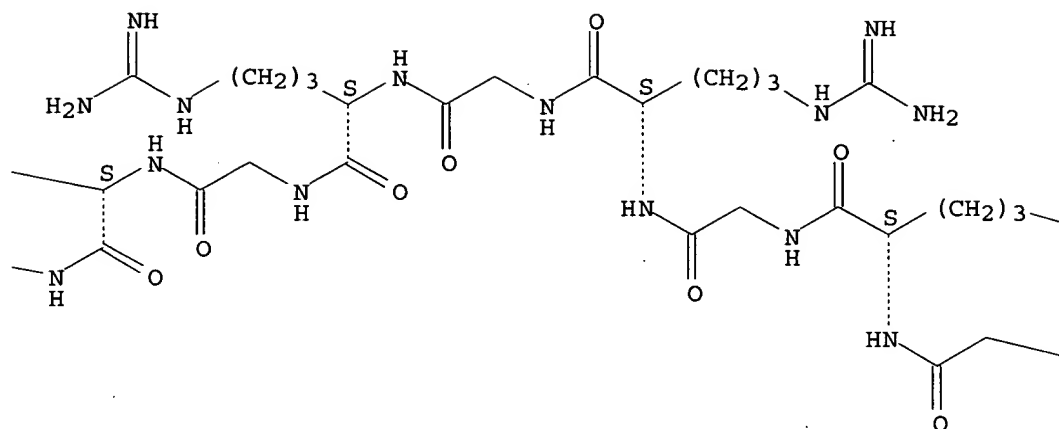
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

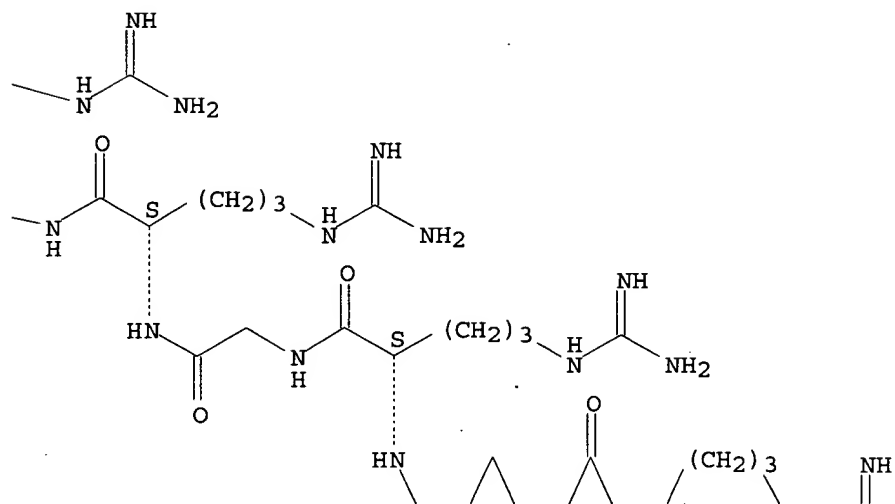
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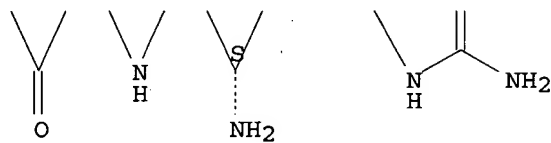
PAGE 1-B



PAGE 1-C



PAGE 2-C



1 REFERENCES IN FILE CA (1907 TO DATE)

REFERENCE 1

| | |
|-------------------|--|
| ACCESSION NUMBER: | 123:340601 CA |
| TITLE: | Utility of non-covalent complexes in the matrix-assisted laser desorption ionization mass spectrometry of heparin-derived oligosaccharides |
| AUTHOR(S): | Juhasz, Peter; Biemann, Klaus |
| CORPORATE SOURCE: | Dep. Chemistry, Massachusetts Inst. Technology, Cambridge, MA, 02139, USA |
| SOURCE: | Carbohydrate Research (1995), 270(2), 131-47 |
| | CODEN: CRBRAT; ISSN: 0008-6215 |
| PUBLISHER: | Elsevier |
| DOCUMENT TYPE: | Journal |
| LANGUAGE: | English |

L14 ANSWER 316 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 170661-89-9 REGISTRY

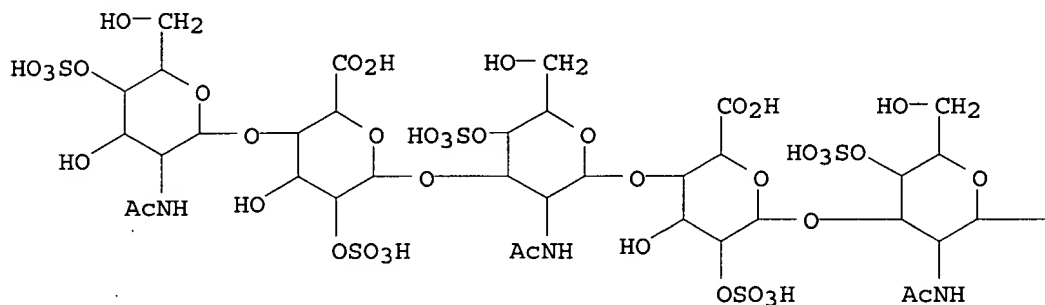
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MF C68 H105 N5 O81 S9

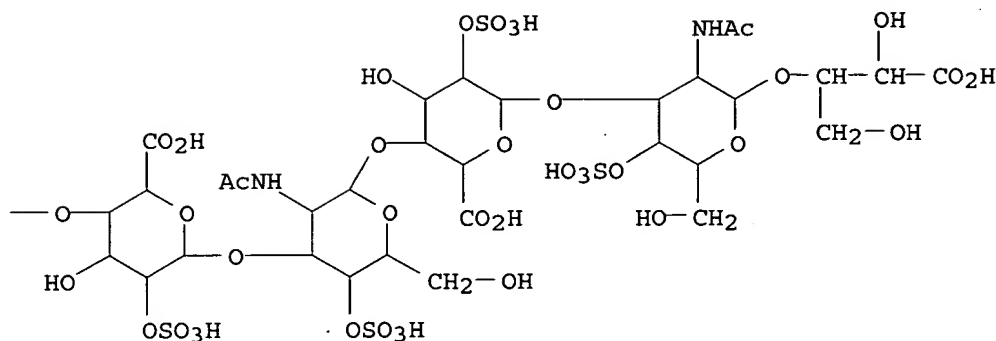
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|----|----|
| SR | CA |
|----|----|

LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:335792 CA
 TITLE: Active sites of dermatan sulfate for heparin cofactor II. Isolation of a nonasaccharide fragment containing four disaccharide sequences [.alpha.-L-iduronic acid 2-O-sulfate (1,3)-.beta.-D-N-acetylgalactosamine 4-sulfate]
 AUTHOR(S): Mascellani, G.; Liverani, L.; Prete, A.; Bergonzini, G. L.; Bianchini, P.; Silvestro, L.; Torri, G.; Bisio, A.; Guerrini, M.; Casu, B.
 CORPORATE SOURCE: R. & D. Laboratories, Opocrin S.p.A., Corlo Formigine, Italy
 SOURCE: Journal of Carbohydrate Chemistry (1995), 14(8), 1165-77
 CODEN: JCACDM; ISSN: 0732-8303
 PUBLISHER: Dekker
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 317 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 170032-47-0 REGISTRY

CN D-Xylose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

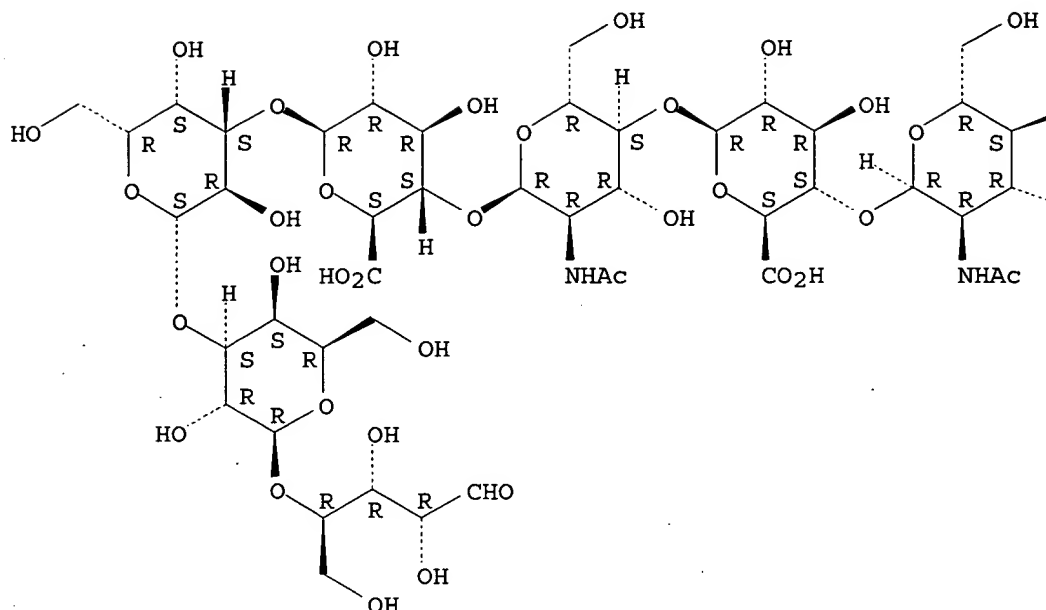
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SR CA

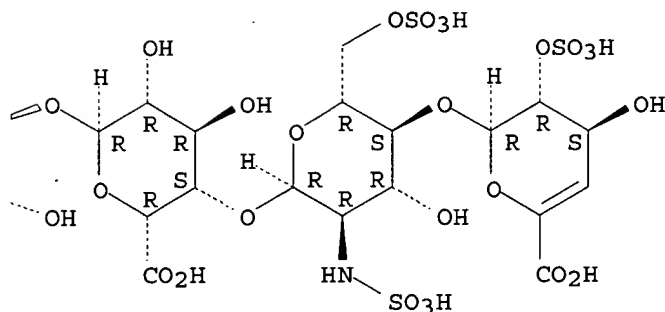
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:308964 CA
 TITLE: Structure determination of the octa- and deca-
 saccharide sequences isolated from the
 carbohydrate-protein linkage region of porcine
 intestinal heparin
 AUTHOR(S): Sugahara, Kazuyuki; Tsuda, Hiromi; Yoshida, Keiichi;
 Yamada, Shuhei; de Beer, Tonny; Vliegthart, Johannes
 F. G.

CORPORATE SOURCE: Dep. Biochem., Kobe Pharmaceutical Univ., Kobe, 658,
Japan
SOURCE: Journal of Biological Chemistry (1995), 270(39),
22914-23
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Bio
logy
DOCUMENT TYPE: Journal
LANGUAGE: English

L14 ANSWER 318 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 170032-46-9 REGISTRY

CN D-Xylose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-
(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-
(1.fwdarw.4)-O-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-
deoxy-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-
(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-
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FS STEREOSEARCH

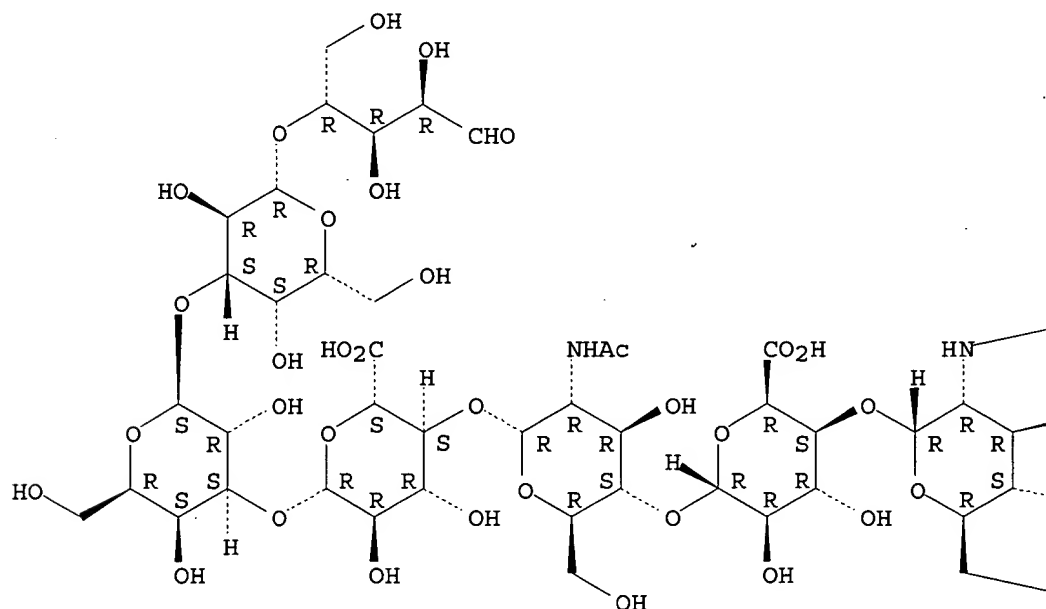
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SR CA

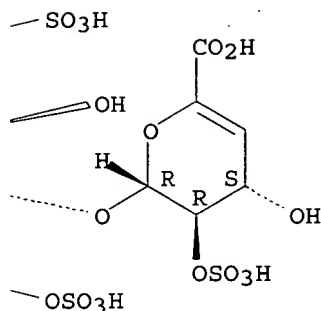
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:308964 CA
TITLE: Structure determination of the octa- and deca-saccharide sequences isolated from the carbohydrate-protein linkage region of porcine intestinal heparin
AUTHOR(S): Sugahara, Kazuyuki; Tsuda, Hiromi; Yoshida, Keiichi; Yamada, Shuhei; de Beer, Tonny; Vliegthart, Johannes F. G.
CORPORATE SOURCE: Dep. Biochem., Kobe Pharmaceutical Univ., Kobe, 658, Japan
SOURCE: Journal of Biological Chemistry (1995), 270(39), 22914-23
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

L14 ANSWER 319 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

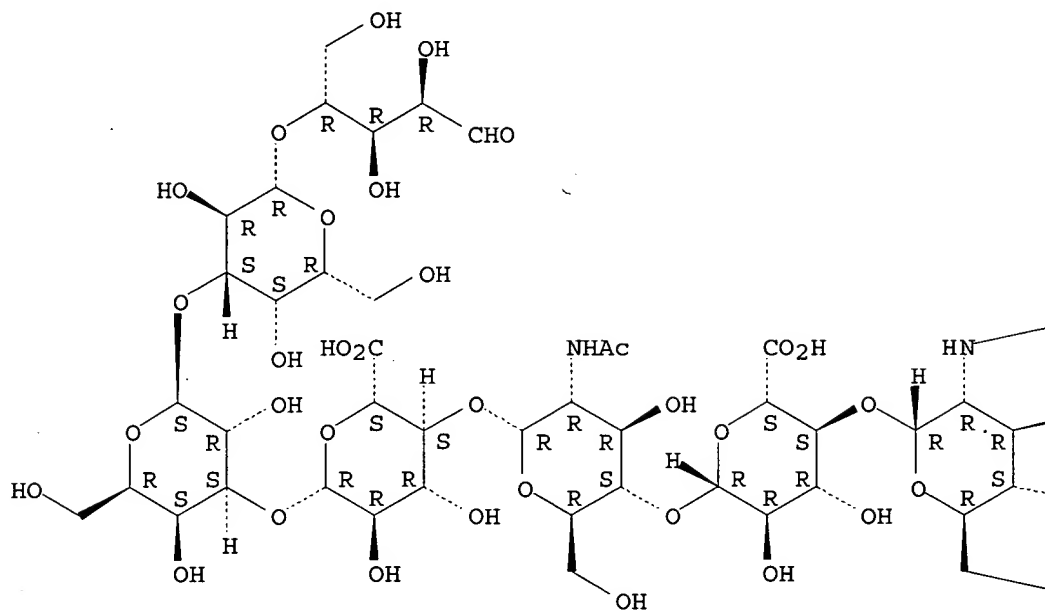
RN 170032-45-8 REGISTRY

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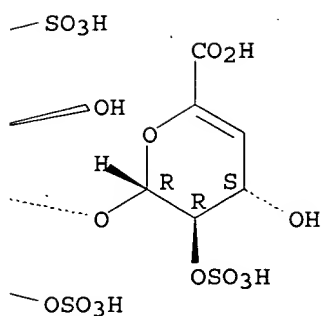
FS STEREOSEARCH
MF C49 H76 N2 O50 S3
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
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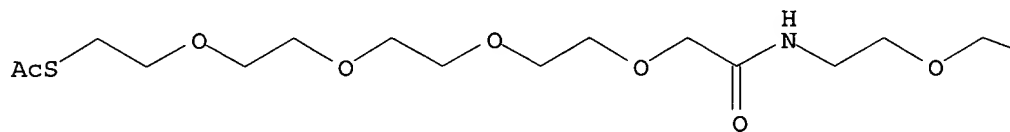
REFERENCE 1

ACCESSION NUMBER: 123:308964 CA
 TITLE: Structure determination of the octa- and
 deca-saccharide sequences isolated from the
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 intestinal heparin
 AUTHOR(S): Sugahara, Kazuyuki; Tsuda, Hiromi; Yoshida, Keiichi;
 Yamada, Shuhei; de Beer, Tonny; Vliegenthart, Johannes
 F. G.
 CORPORATE SOURCE: Dep. Biochem., Kobe Pharmaceutical Univ., Kobe, 658,
 Japan
 SOURCE: Journal of Biological Chemistry (1995), 270(39),
 22914-23
 CODEN: JBCHA3; ISSN: 0021-9258
 PUBLISHER: American Society for Biochemistry and Molecular Bio
 logy
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L14 ANSWER 320 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-78-4 REGISTRY
 CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13,28-dioxo-3,6,9,15,18,21,24-
 hepta-oxa-27-thia-12-azanonacos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-
 glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-
 (1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-
 2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-,
 2,3,6-tris(hydrogen sulfate), undecasodium salt (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C55 H95 N O64 S10 . 11 Na
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

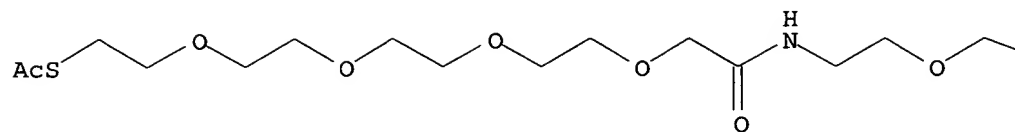
Absolute stereochemistry.

PAGE 1-A



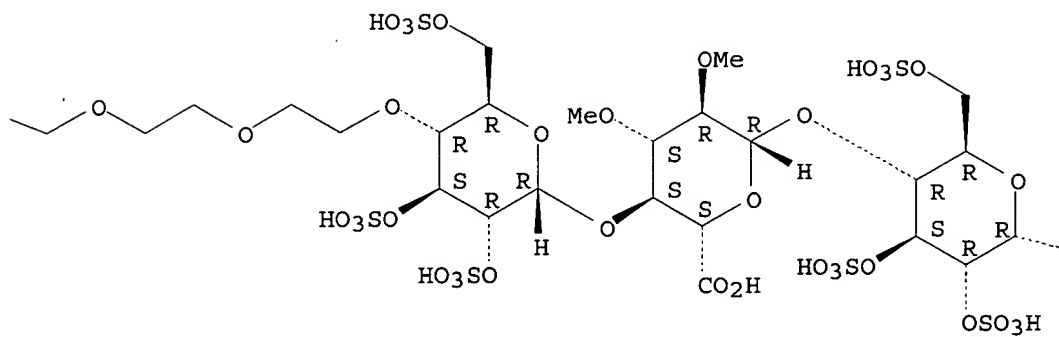
● 11 Na

PAGE 1-A

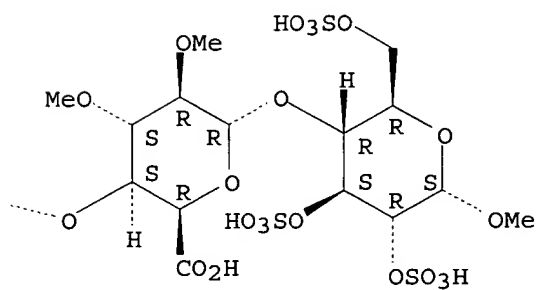


● 11 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two
 oligosaccharide sulfate and a spacer as
 antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou,
 Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
| EP 649854 | B1 | 20000315 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| AT 190619 | E | 20000415 | AT 1994-202470 | 19940830 |
| PT 649854 | T | 20000731 | PT 1994-94202470 | 19940830 |
| ES 2147216 | T3 | 20000901 | ES 1994-202470 | 19940830 |
| CA 2131229 | AA | 19950302 | CA 1994-2131229 | 19940831 |
| FI 9404001 | A | 19950302 | FI 1994-4001 | 19940831 |
| NO 9403222 | A | 19950302 | NO 1994-3222 | 19940831 |
| AU 9471610 | A1 | 19950316 | AU 1994-71610 | 19940831 |
| AU 679084 | B2 | 19970619 | | |
| ZA 9406673 | A | 19950421 | ZA 1994-6673 | 19940831 |
| HU 69163 | A2 | 19950828 | HU 1994-2514 | 19940831 |
| JP 07304787 | A2 | 19951121 | JP 1994-232003 | 19940901 |
| US 5705489 | A | 19980106 | US 1996-690449 | 19960805 |
| HK 1002009 | A1 | 20001215 | HK 1998-101022 | 19980211 |
| GR 3033410 | T3 | 20000929 | GR 2000-401098 | 20000512 |
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| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 321 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-64-8 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(22-mercapto-13,20-dioxo-3,6,9-trioxa-12,19-diazadocos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), dodecasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

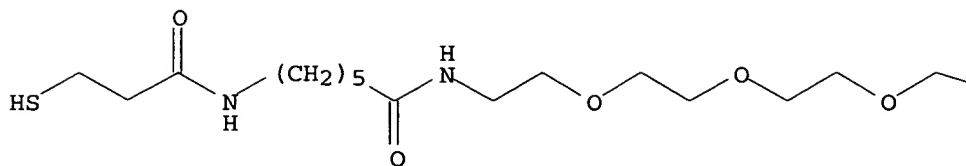
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SR CA

LC STN Files: CA, CAPLUS, USPATFULL

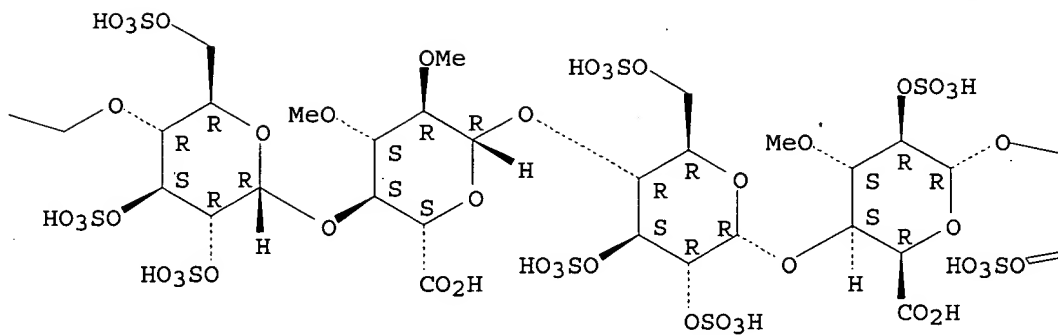
Absolute stereochemistry.

PAGE 1-A

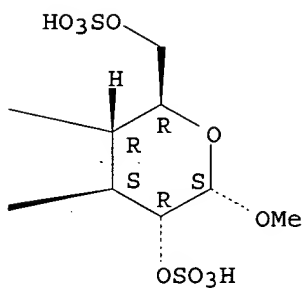


● 12 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

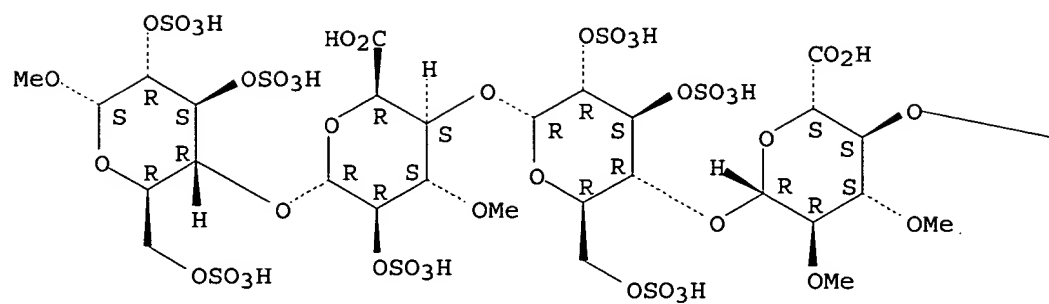
ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two
 oligosaccharide sulfate and a spacer as
 antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou,
 Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
| EP 649854 | B1 | 20000315 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| AT 190619 | E | 20000415 | AT 1994-202470 | 19940830 |
| PT 649854 | T | 20000731 | PT 1994-94202470 | 19940830 |
| ES 2147216 | T3 | 20000901 | ES 1994-202470 | 19940830 |
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| FI 9404001 | A | 19950302 | FI 1994-4001 | 19940831 |
| NO 9403222 | A | 19950302 | NO 1994-3222 | 19940831 |
| AU 9471610 | A1 | 19950316 | AU 1994-71610 | 19940831 |
| AU 679084 | B2 | 19970619 | | |
| ZA 9406673 | A | 19950421 | ZA 1994-6673 | 19940831 |
| HU 69163 | A2 | 19950828 | HU 1994-2514 | 19940831 |
| JP 07304787 | A2 | 19951121 | JP 1994-232003 | 19940901 |
| US 5705489 | A | 19980106 | US 1996-690449 | 19960805 |
| HK 1002009 | A1 | 20001215 | HK 1998-101022 | 19980211 |
| GR 3033410 | T3 | 20000929 | GR 2000-401098 | 20000512 |
| PRIORITY APPLN. INFO.: | | | EP 1993-202562 | 19930901 |
| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 322 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-63-7 REGISTRY
 CN .alpha.-D-Glucopyranoside, methyl O-4-O-[13,20-dioxo-22-(2-
 pyridinyldithio)-3,6,9-trioxa-12,19-diazadocos-1-yl]-2,3,6-tri-O-sulfo-
 .alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-
 glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-
 glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-
 idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), dodecasodium
 salt (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C56 H91 N3 O63 S12 . 12 Na
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

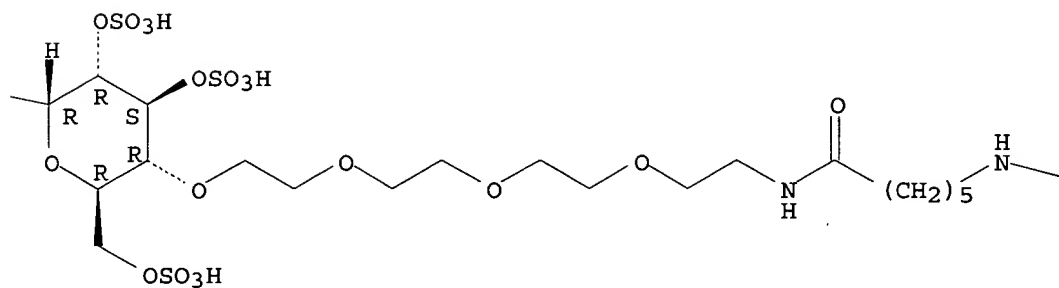
Absolute stereochemistry.

PAGE 1-A

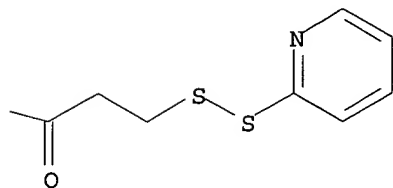


● 12 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two

oligosaccharide sulfate and a spacer as
antithrombotics

INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA

SOURCE: Eur. Pat. Appl., 49 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
| EP 649854 | B1 | 20000315 | | |
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| JP 07304787 | A2 | 19951121 | JP 1994-232003 | 19940901 |
| US 5705489 | A | 19980106 | US 1996-690449 | 19960805 |
| HK 1002009 | A1 | 20001215 | HK 1998-101022 | 19980211 |
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| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 323 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-62-6 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-[2-[2-[2-(2-aminoethoxy)ethoxy]ethoxy]ethyl]-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), dodecasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

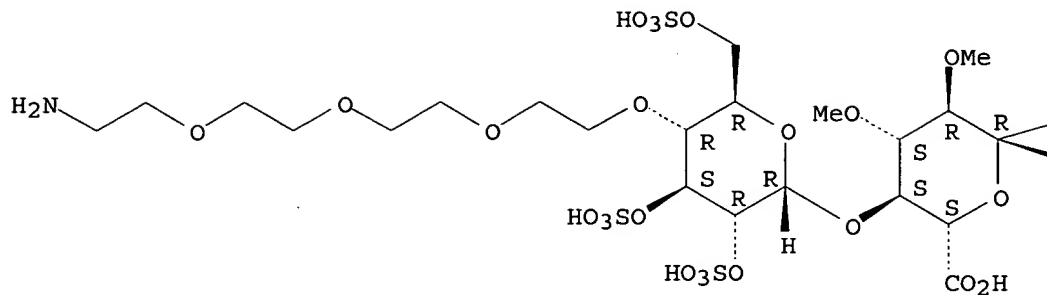
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LC STN Files: CA, CAPLUS, USPATFULL

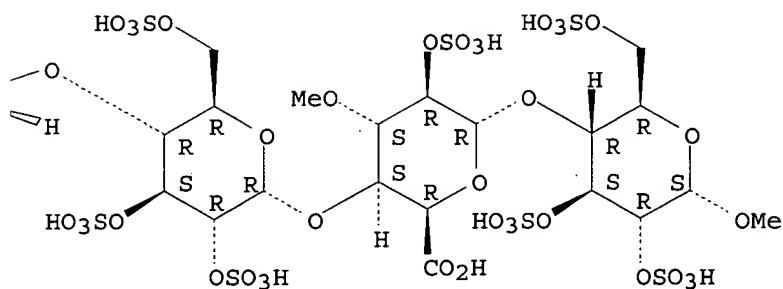
Absolute stereochemistry.

PAGE 1-A



● 12 Na

PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
| EP 649854 | B1 | 20000315 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
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| PT 649854 | T | 20000731 | PT 1994-94202470 | 19940830 |
| ES 2147216 | T3 | 20000901 | ES 1994-202470 | 19940830 |
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| ZA 9406673 | A | 19950421 | ZA 1994-6673 | 19940831 |
| HU 69163 | A2 | 19950828 | HU 1994-2514 | 19940831 |
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| HK 1002009 | A1 | 20001215 | HK 1998-101022 | 19980211 |
| GR 3033410 | T3 | 20000929 | GR 2000-401098 | 20000512 |
| PRIORITY APPLN. INFO.: | | | EP 1993-202562 | 19930901 |
| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 324 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-61-5 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13-oxo-15-phenyl-3,6,9,14-tetraoxa-12-azapentadec-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), dodecasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

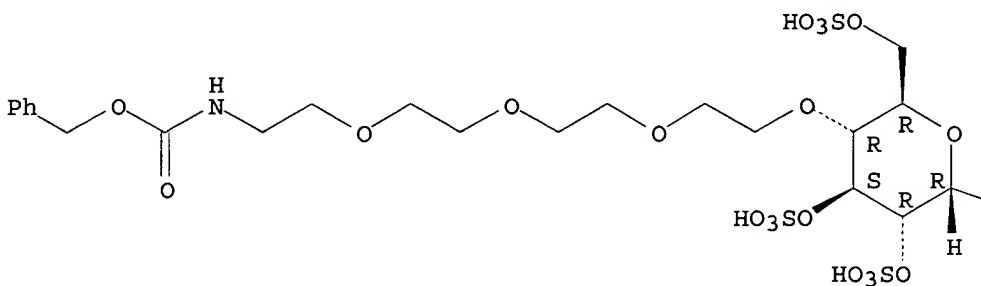
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LC STN Files: CA, CAPLUS, USPATFULL

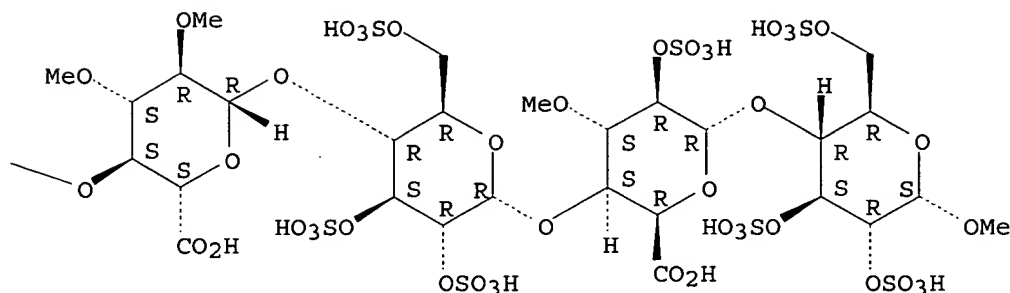
Absolute stereochemistry.

PAGE 1-A



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PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

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| AU 9471610 | A1 | 19950316 | AU 1994-71610 | 19940831 |
| AU 679084 | B2 | 19970619 | | |
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| HK 1002009 | A1 | 20001215 | HK 1998-101022 | 19980211 |
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| PRIORITY APPLN. INFO.: | | | EP 1993-202562 | 19930901 |
| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 325 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-25-1 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(26-mercapto-13-oxo-3,6,9,15,18,21,24-hepta-oxa-12-azahexacos-1-yl)-2,3-di-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), nonasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

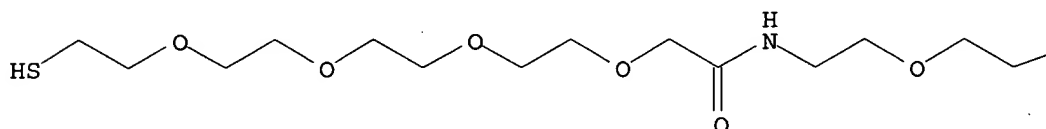
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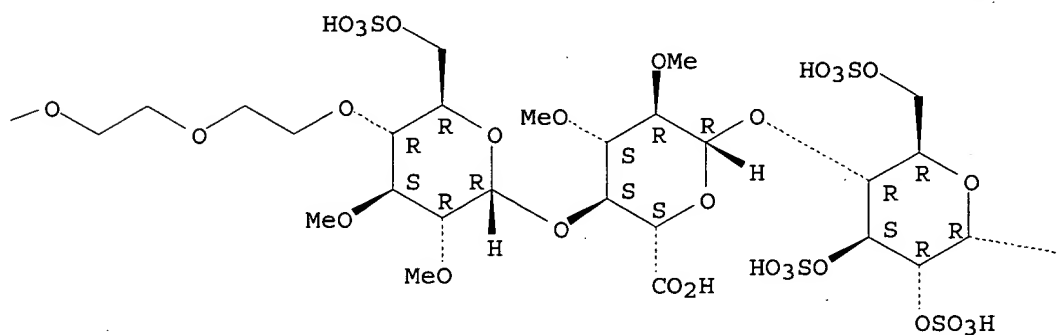
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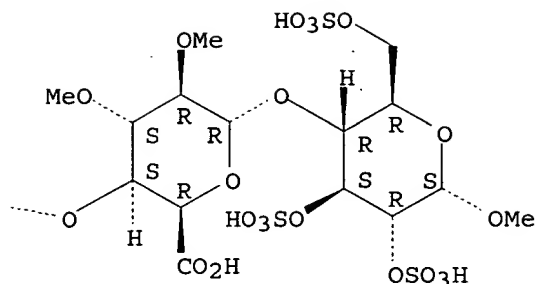


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1 REFERENCES IN FILE CA (1907 TO DATE)
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ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
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| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
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| AU 9471610 | A1 | 19950316 | AU 1994-71610 | 19940831 |
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| PRIORITY APPLN. INFO.: | | | EP 1993-202562 | 19930901 |
| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 326 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-22-8 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13,28-dioxo-3,6,9,15,18,21,24-hepta-27-thia-12-azanonacos-1-yl)-2,3-di-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), nonasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C57 H99 N O58 S8 . 9 Na

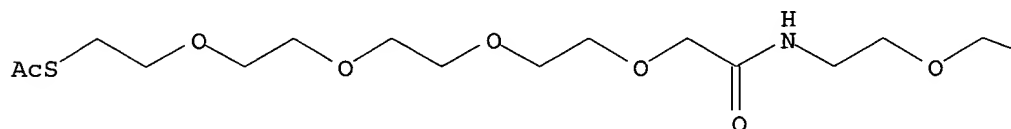
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LC STN Files: CA, CAPLUS, USPATFULL

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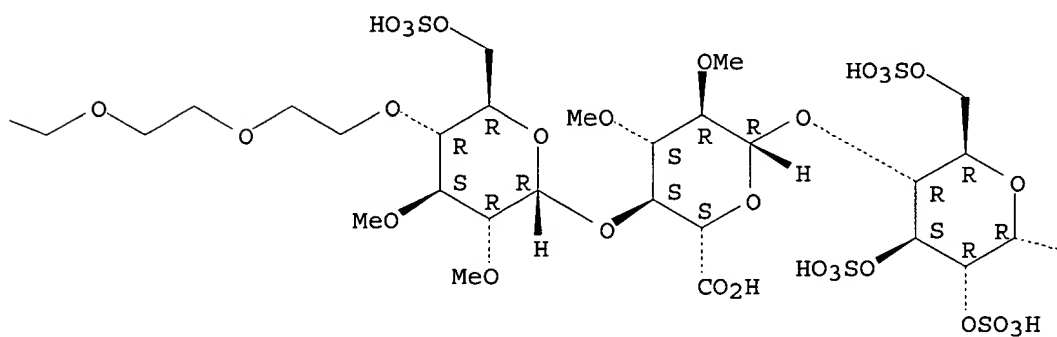
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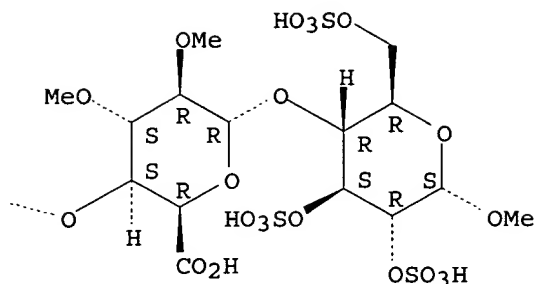


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1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
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| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| AT 190619 | E | 20000415 | AT 1994-202470 | 19940830 |
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| JP 07304787 | A2 | 19951121 | JP 1994-232003 | 19940901 |
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| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 327 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-21-7 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(26-mercapto-12-methyl-13-oxo-3,6,9,15,18,21,24-hepta-oxa-12-azahexacos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-mannopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.6)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), tridecasodium salt (9CI) (CA INDEX NAME)

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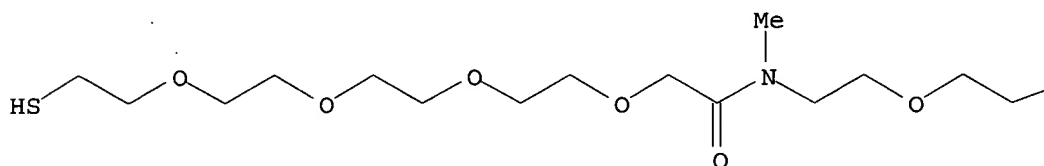
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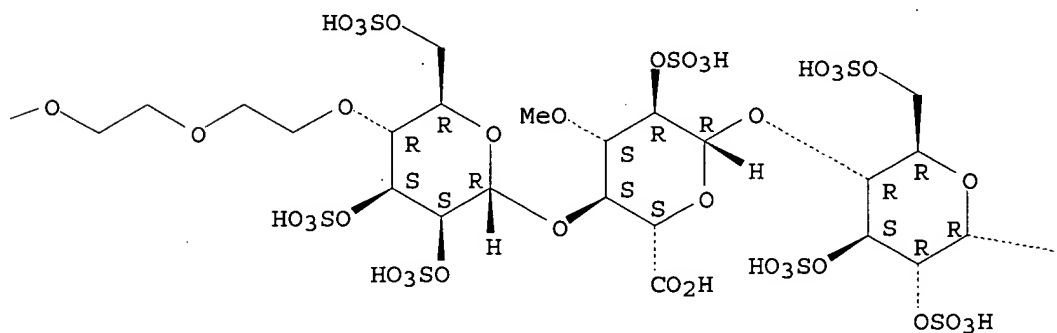
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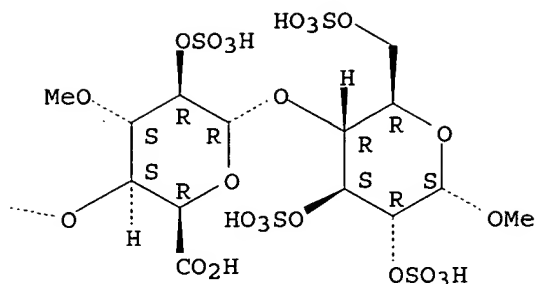


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PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
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REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
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 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
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| PRIORITY APPLN. INFO.: | | | EP 1993-202562 | 19930901 |
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L14 ANSWER 328 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-20-6 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(12-methyl-13,28-dioxo-3,6,9,15,18,21,24-hepta-27-thia-12-azanonacos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-mannopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), tridecasodium salt (9CI) (CA INDEX NAME)

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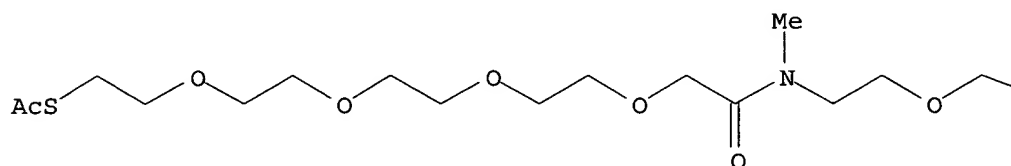
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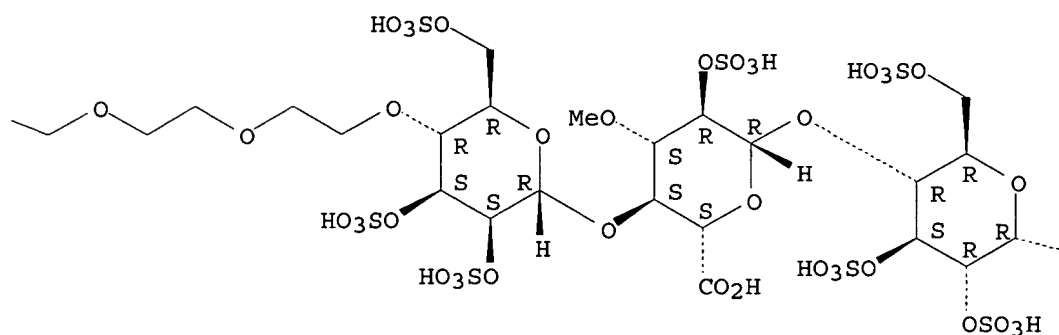
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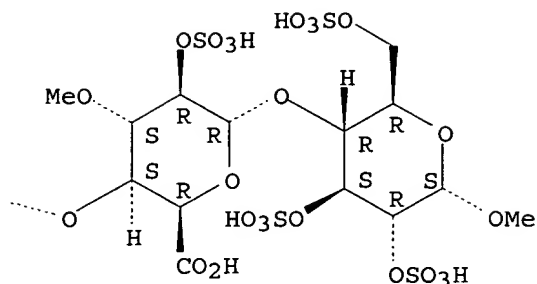


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PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
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REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
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L14 ANSWER 329 OF 488 'REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-19-3 REGISTRY

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 (CA INDEX NAME)

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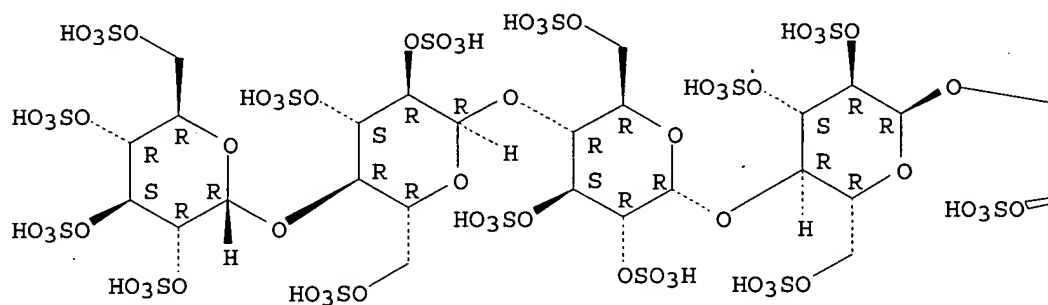
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SR CA

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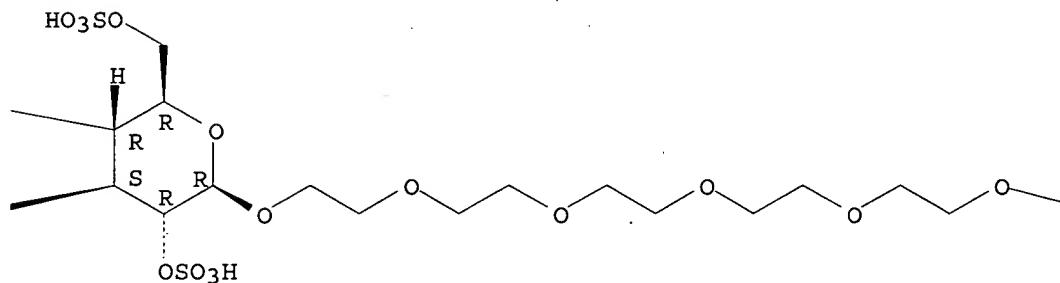
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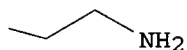


● 16 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
| EP 649854 | B1 | 20000315 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| AT 190619 | E | 20000415 | AT 1994-202470 | 19940830 |
| PT 649854 | T | 20000731 | PT 1994-94202470 | 19940830 |
| ES 2147216 | T3 | 20000901 | ES 1994-202470 | 19940830 |
| CA 2131229 | AA | 19950302 | CA 1994-2131229 | 19940831 |
| FI 9404001 | A | 19950302 | FI 1994-4001 | 19940831 |
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| AU 679084 | B2 | 19970619 | | |
| ZA 9406673 | A | 19950421 | ZA 1994-6673 | 19940831 |
| HU 69163 | A2 | 19950828 | HU 1994-2514 | 19940831 |
| JP 07304787 | A2 | 19951121 | JP 1994-232003 | 19940901 |
| US 5705489 | A | 19980106 | US 1996-690449 | 19960805 |
| HK 1002009 | A1 | 20001215 | HK 1998-101022 | 19980211 |
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| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

L14 ANSWER 330 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 169751-18-2 REGISTRY
 CN .beta.-D-Glucopyranoside, 17-azido-3,6,9,12,15-pentaoxaheptadec-1-yl
 O-2,3,4,6-tetra-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-
 O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-

D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), hexadecasodium salt (9CI)
(CA INDEX NAME)

FS STEREOSEARCH

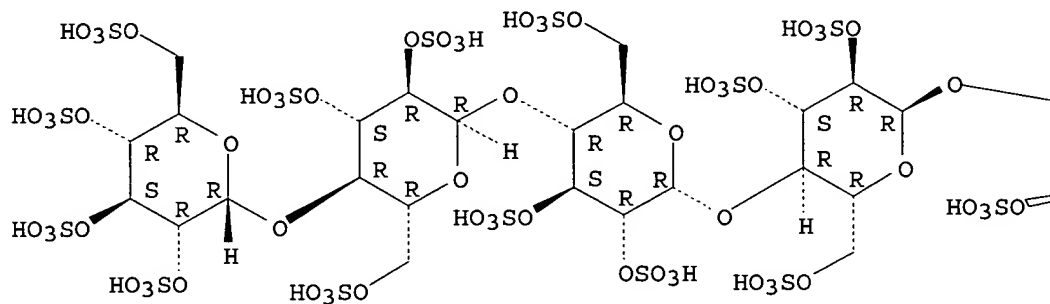
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SR CA

LC STN Files: CA, CAPLUS, USPATFULL

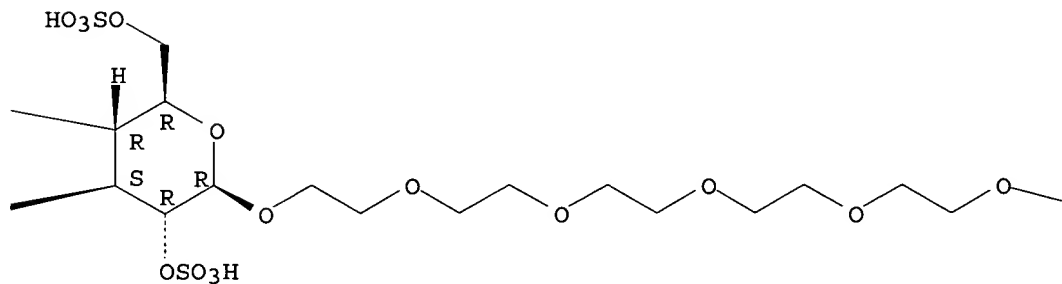
Absolute stereochemistry.

PAGE 1-A

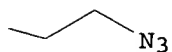


● 16 Na

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PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
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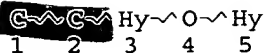
REFERENCE 1

ACCESSION NUMBER: 123:314399 CA
 TITLE: Preparation of bisconjugates comprising two
 oligosaccharide sulfate and a spacer as
 antithrombotics
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou,
 Maurice
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| EP 649854 | A1 | 19950426 | EP 1994-202470 | 19940830 |
| EP 649854 | B1 | 20000315 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| AT 190619 | E | 20000415 | AT 1994-202470 | 19940830 |
| PT 649854 | T | 20000731 | PT 1994-94202470 | 19940830 |
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| FI 9404001 | A | 19950302 | FI 1994-4001 | 19940831 |
| NO 9403222 | A | 19950302 | NO 1994-3222 | 19940831 |
| AU 9471610 | A1 | 19950316 | AU 1994-71610 | 19940831 |
| AU 679084 | B2 | 19970619 | | |
| ZA 9406673 | A | 19950421 | ZA 1994-6673 | 19940831 |
| HU 69163 | A2 | 19950828 | HU 1994-2514 | 19940831 |
| JP 07304787 | A2 | 19951121 | JP 1994-232003 | 19940901 |
| US 5705489 | A | 19980106 | US 1996-690449 | 19960805 |
| HK 1002009 | A1 | 20001215 | HK 1998-101022 | 19980211 |
| GR 3033410 | T3 | 20000929 | GR 2000-401098 | 20000512 |
| PRIORITY APPLN. INFO.: | | | EP 1993-202562 | 19930901 |
| | | | EP 1994-202470 | 19940830 |
| | | | US 1994-299183 | 19940831 |

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L2 STR



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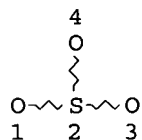
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NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L5 857 SEA FILE=REGISTRY SUB=L1 SSS FUL L2
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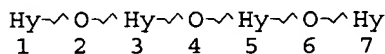
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L7 321 SEA FILE=REGISTRY SUB=L5 SSS FUL L6
L9 STR



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DEFAULT MLEVEL IS ATOM
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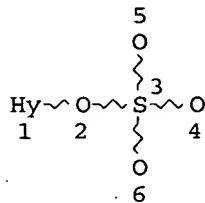
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L10 248 SEA FILE=REGISTRY SUB=L7 SSS FUL L9
L11 STR



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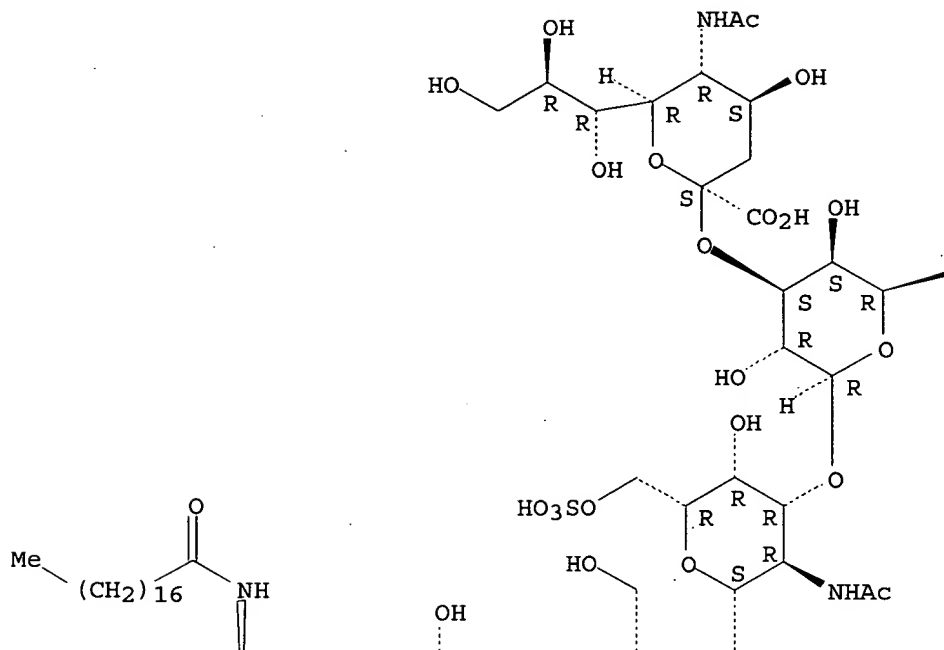
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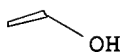
L15 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:746326 HCAPLUS
DOCUMENT NUMBER: 139:365158
TITLE: Novel sulfated gangliosides, high-affinity ligands for neural siglecs, inhibit NADase activity of leukocyte cell surface antigen CD38
AUTHOR(S): Hara-Yokoyama, Miki; Ito, Hiromi; Ueno-Noto, Kaori; Takano, Keiko; Ishida, Hideharu; Kiso, Makoto
CORPORATE SOURCE: Graduate School, Department of Hard Tissue Engineering, Division of Bio-Matrix, Biochemistry, Tokyo Medical and Dental University, Bunkyo-ku, Tokyo, 113-8549, Japan
SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(20), 3441-3445
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three kinds of novel sulfated gangliosides structurally related to the Chol-1 (.alpha.-series) ganglioside GQ1b.alpha. were synthesized. These sulfated gangliosides were potent inhibitors of NADase activity of leukocyte cell surface antigen CD38. Among the synthetic gangliosides, GSC-338 (II3III6-disulfate of iso-GM1b) was surprisingly found to be the most potent structure in both the NADase inhibition and MAG-binding activity. The present study indicates that the sulfated gangliosides are useful to study the recognition of the internal tandem sialic acid residues .alpha.2-3-linked to Gal(II3) as well as the siglec-dependent recognition including a terminal sialic acid residue.
IT 622851-71-2P 622851-72-3P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and NADase activity of leukocyte cell surface antigen CD38 inhibition of sulfated gangliosides related to the Chol-1 (.alpha.-series) ganglioside GQ1b.alpha.)
RN 622851-71-2 HCAPLUS
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

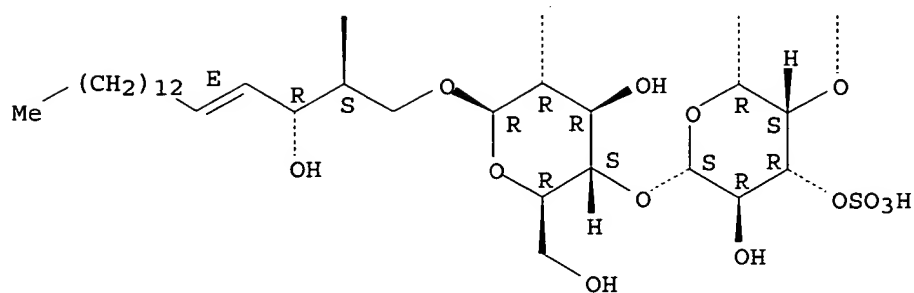
PAGE 1-A



PAGE 1-B



PAGE 2-A



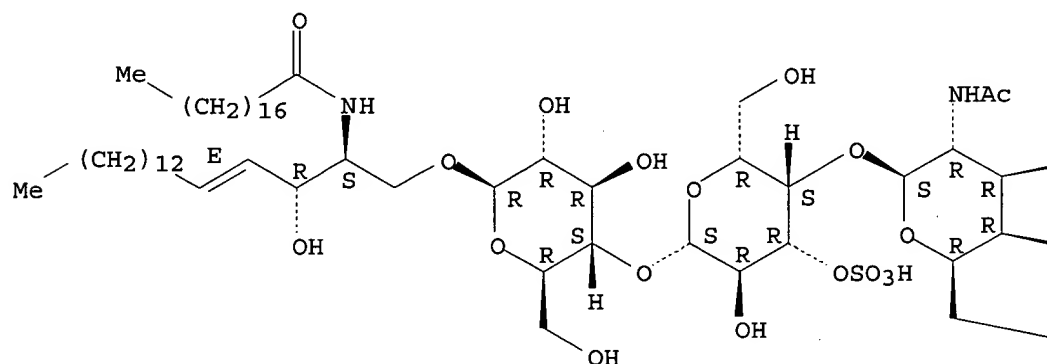
● 3 Na

RN 622851-72-3 HCAPLUS

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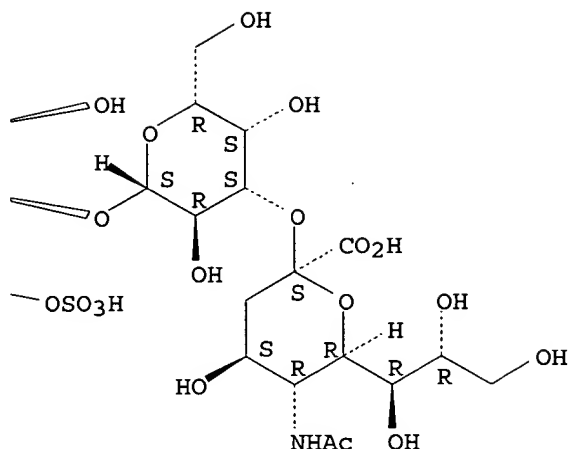
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



● 3 Na

PAGE 1-B



IT 622851-82-5P 622851-85-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

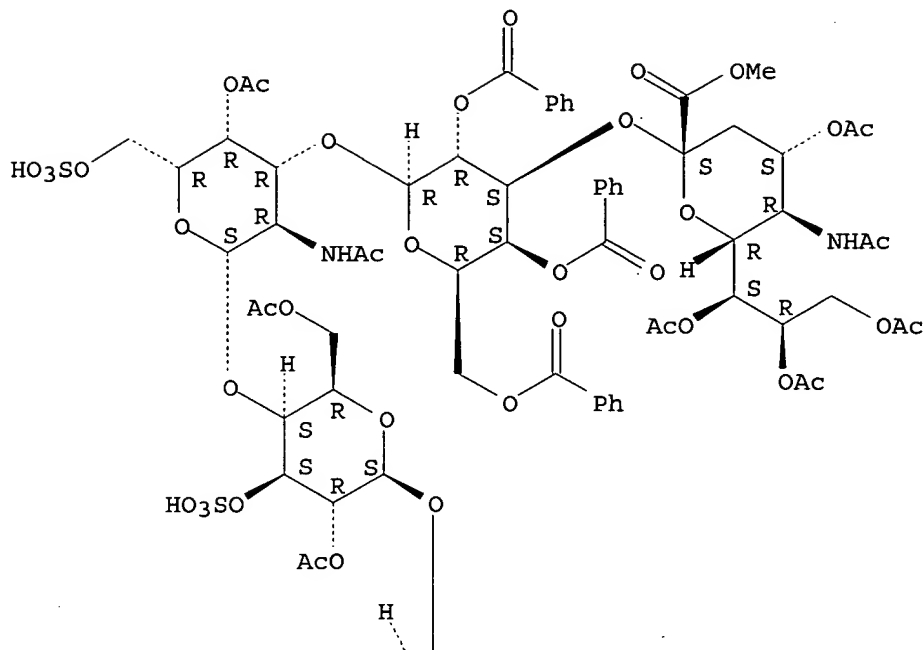
(prepn. and NADase activity of leukocyte cell surface antigen CD38 inhibition of sulfated gangliosides related to the Chol-1 (.alpha.-series) ganglioside GQ1b.alpha.)

RN 622851-82-5 HCAPLUS

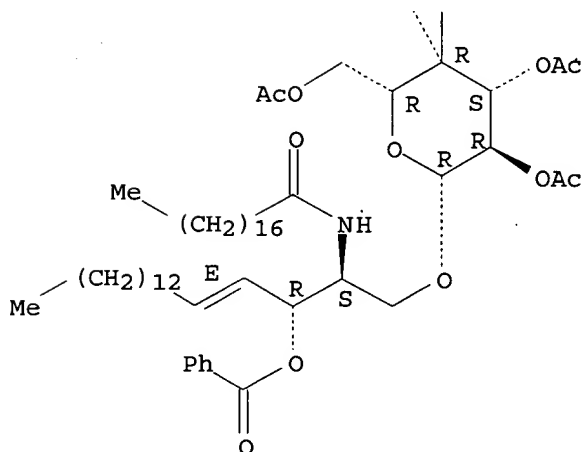
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy)methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A



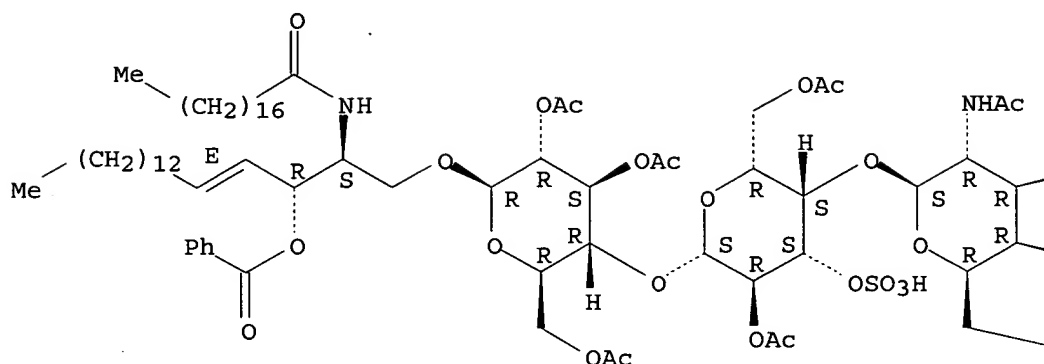
RN 622851-85-8 HCAPLUS

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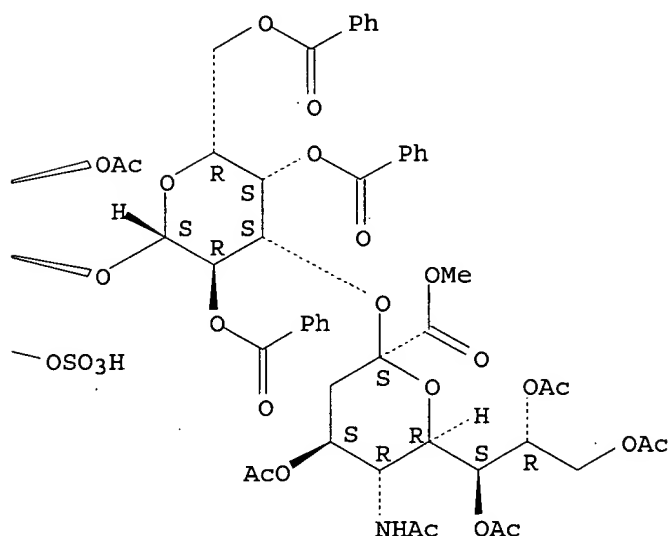
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:535178 HCAPLUS

DOCUMENT NUMBER: 139:292427

TITLE: Systematic synthesis and MAG-binding activity of novel sulfated GM1b analogues as mimics of Chol-1 (.alpha.-series) gangliosides: highly active ligands for neural siglecs

AUTHOR(S): Ito, Hiromi; Ishida, Hideharu; Collins, Brian E.; Fromholt, Susan E.; Schnaar, Ronald L.; Kiso, Makoto
CORPORATE SOURCE: Department of Applied Bio-organic Chemistry, Gifu University, Gifu, 501-1193, Japan

SOURCE: Carbohydrate Research (2003), 338(16), 1621-1639
CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Systematic synthesis and myelin-assocd. glycoprotein (MAG)-binding activity of novel sulfated GM1b analogs structurally related to Chol-1 (.alpha.-series) gangliosides, high-affinity ligands for neural siglecs, are described. The suitably protected gangliotriose derivs., 2-(trimethylsilyl)ethyl 2-acetamido-2-deoxy-6-O-levulinoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-glucopyranoside and 2-(trimethylsilyl)ethyl 2-acetamido-2-deoxy-6-O-levulinoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,6-di-O-benzyl-3-O-levulinoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-glucopyranoside were each glycosylated with .alpha.-NeuAc-(2.fwdarw.3)-galactose donor to give the corresponding pentasaccharides in 94% (.beta.1,3 glycoside only) and 90% (.beta.1,3:.beta.1,4=2:1), resp. After proper manipulation of the protecting groups, the pentasaccharides were converted into three novel sulfated GM1b gangliosides by the successive introduction of the ceramide and sulfo groups, followed by complete deprotection. Among the synthetic gangliosides, GSC-338 (II3III6-disulfate of iso-GM1b) was surprisingly found to be the most potent MAG binding structure tested to date.

IT 622851-71-2P 622851-72-3P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation)

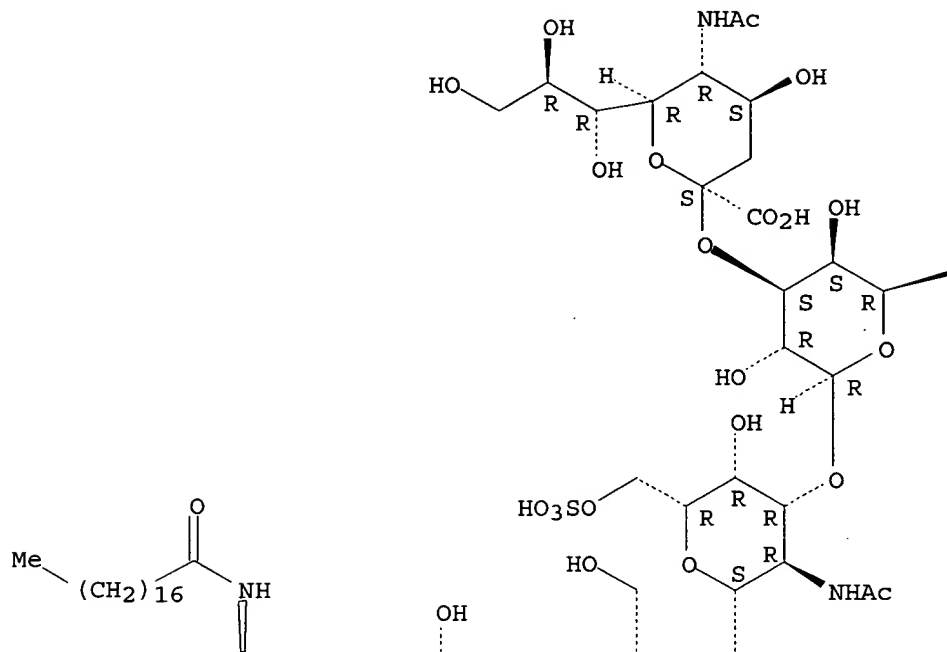
(systematic synthesis and MAG-binding activity of novel sulfated GM1b analogs as mimics of Chol-1 (.alpha.-series) gangliosides)

RN 622851-71-2 HCAPLUS

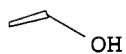
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

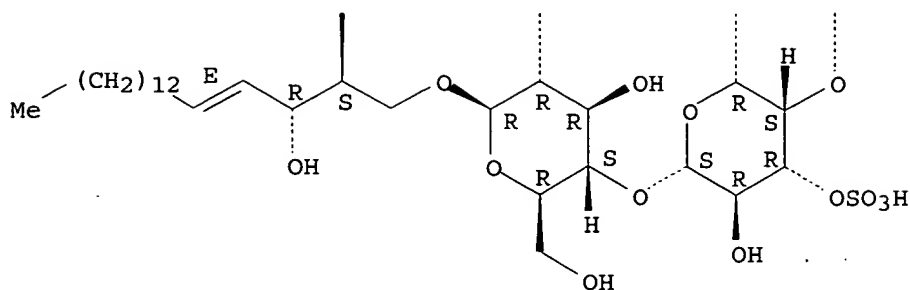
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PAGE 1-B



PAGE 2-A



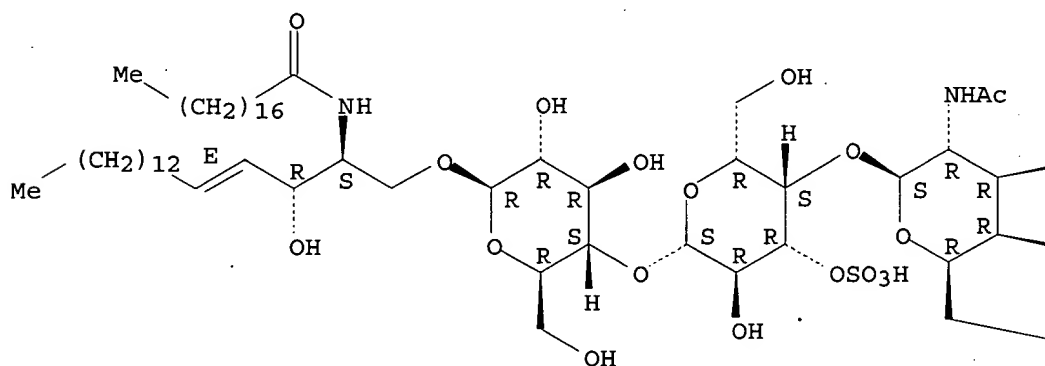
●3 Na

RN 622851-72-3 HCAPLUS

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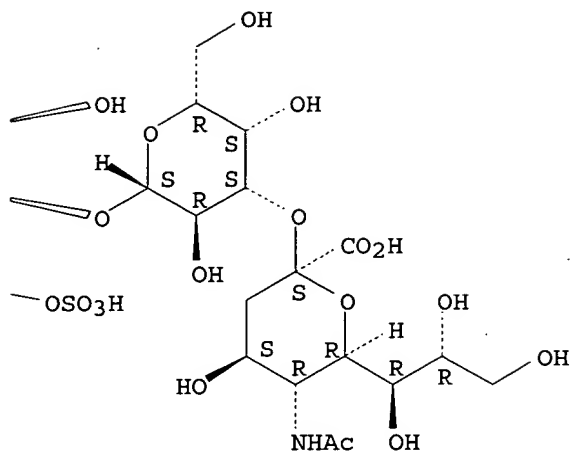
Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



●3 Na

PAGE 1-B



IT 608130-64-9P 608130-72-9P 608130-88-7P

608130-94-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(systematic synthesis and MAG-binding activity of novel sulfated GM1b analogs as mimics of Chol-1 (.alpha.-series) gangliosides)

RN 608130-64-9 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-triacetate, compd. with pyridine (1:2) (9CI) (CA INDEX NAME)

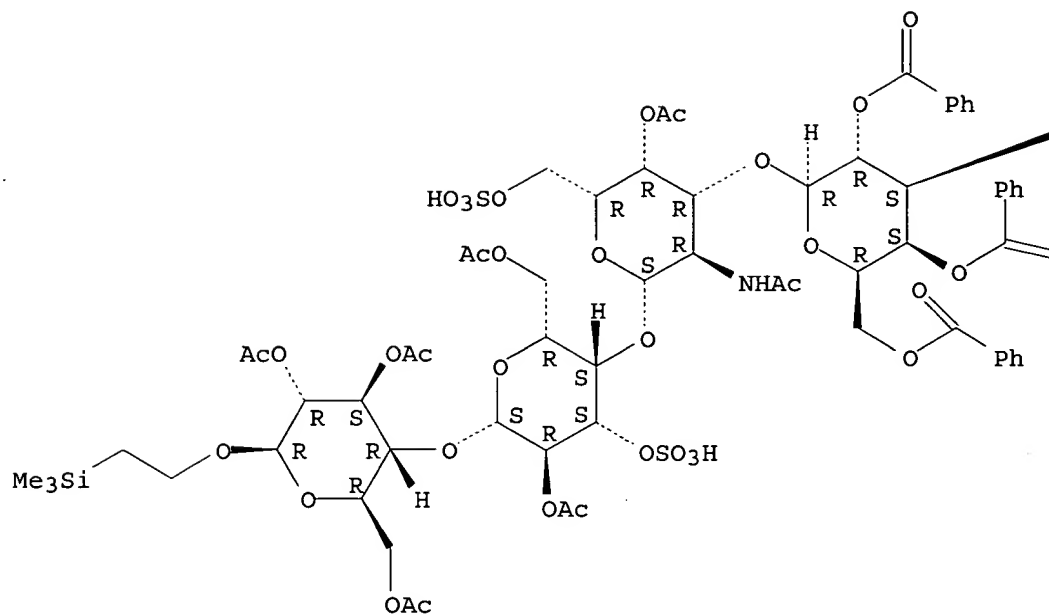
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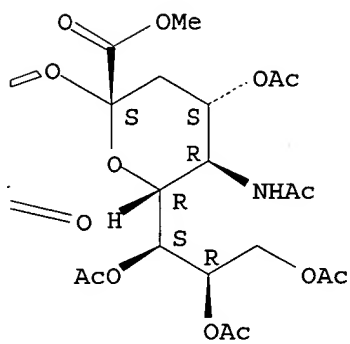
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Absolute stereochemistry. Rotation (+).

PAGE 1-A



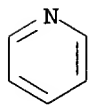
PAGE 1-B



CM 2

CRN 110-86-1

CMF C5 H5 N



RN 608130-72-9 HCAPLUS

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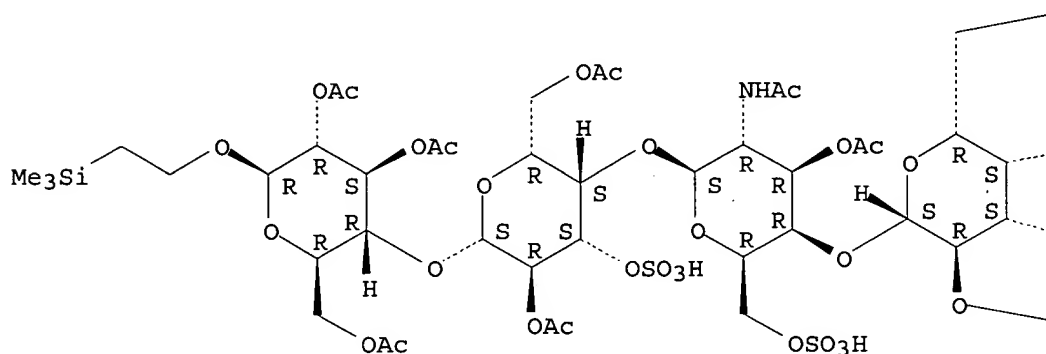
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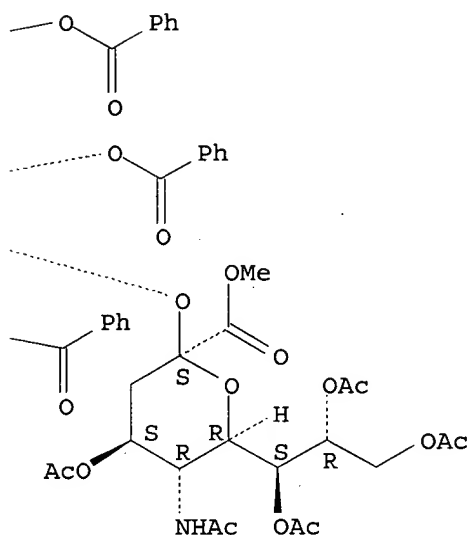
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Absolute stereochemistry. Rotation (+).

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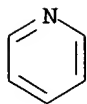


PAGE 1-B



CM 2

CRN 110-86-1
CMF C5 H5 N



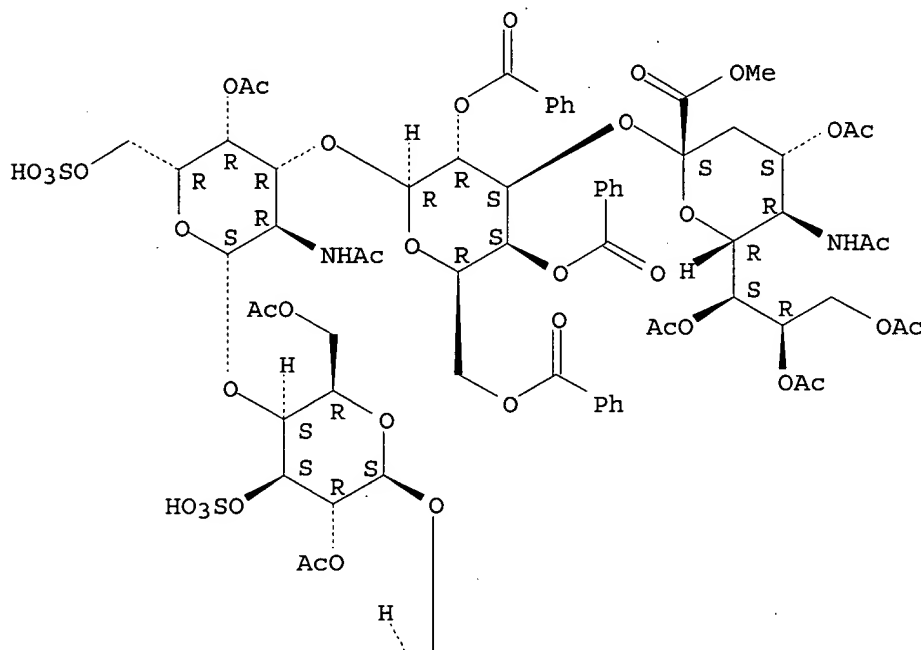
RN 608130-88-7 HCAPLUS
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy)methyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI) (CA INDEX NAME)

CM 1

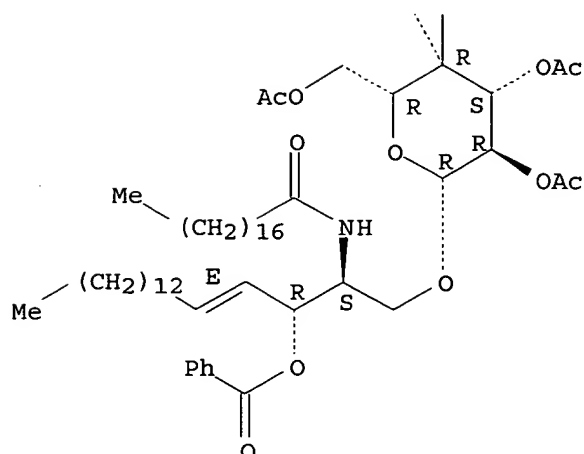
CRN 622851-82-5
CMF C122 H169 N3 O51 S2

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



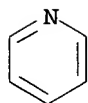
PAGE 2-A



CM 2

CRN 110-86-1

CMF C5 H5 N



RN 608130-94-5 HCAPLUS

CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI) (CA INDEX NAME)

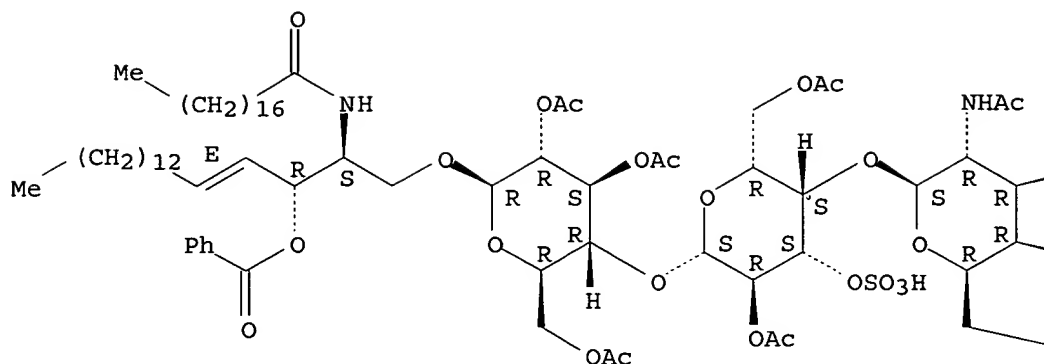
CM 1

CRN 622851-85-8

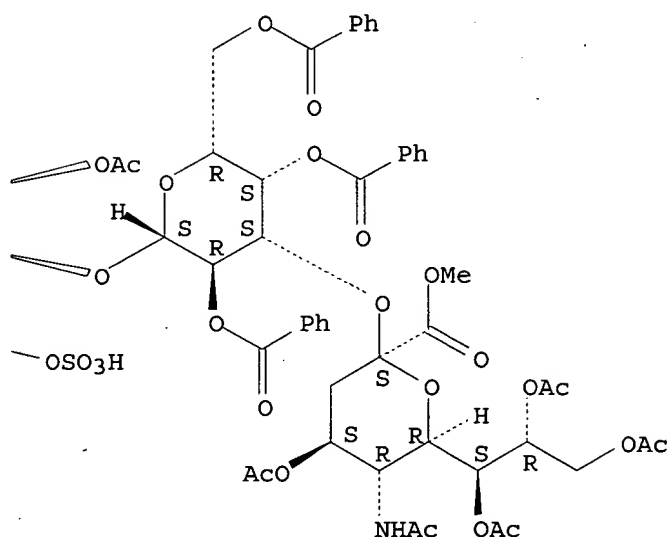
CMF C122 H169 N3 O51 S2

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



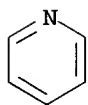
PAGE 1-B



CM 2

CRN 110-86-1

CMF C5 H5 N



IT 608130-66-1P 608130-75-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

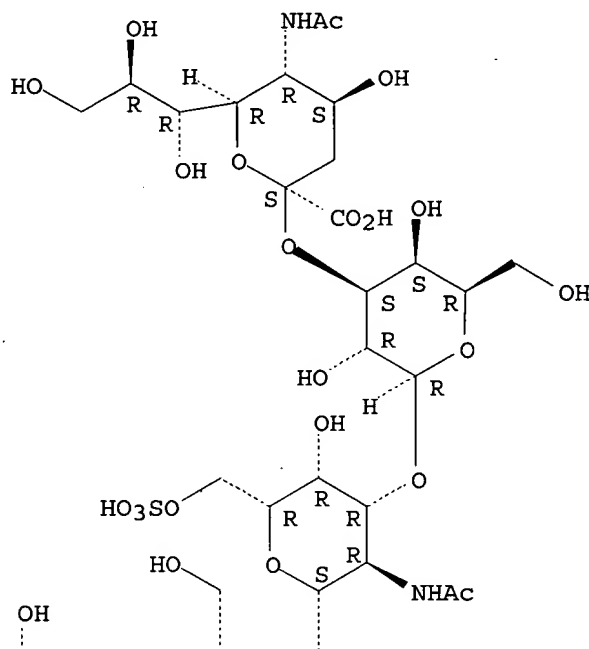
(systematic synthesis and MAG-binding activity of novel sulfated GM1b analogs as mimics of Chol-1 (.alpha.-series) gangliosides)

RN 608130-66-1 HCAPLUS

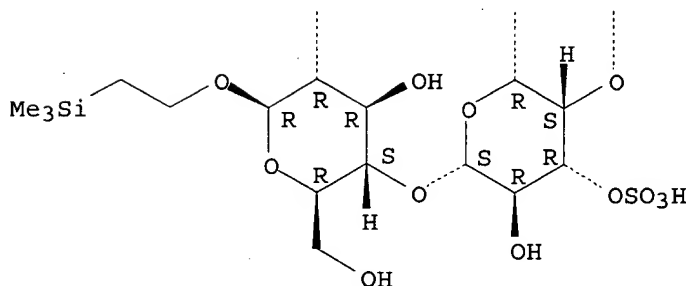
CN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A



● 3 Na

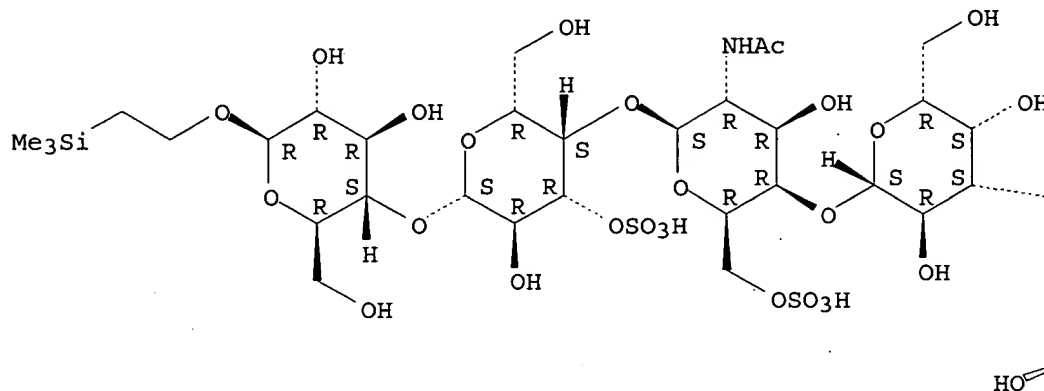
RN 608130-75-2 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-

O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, trisodium salt (9CI) (CA INDEX NAME)

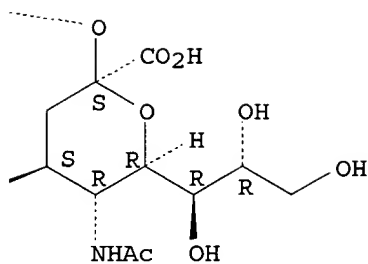
Absolute stereochemistry. Rotation (-).

PAGE 1-A



● 3 Na

PAGE 1-B



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:935760 HCAPLUS

DOCUMENT NUMBER: 138:321467

TITLE: Probing the heparin - antithrombin III interaction using synthetic pentasaccharides bearing positively

charged groups

AUTHOR(S): Codee, Jeroen D. C.; van der Marel, Gijsbert A.; van Boeckel, Constant A. A.; van Boom, Jacques H.

CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden University, Leiden, 2300 RA, Neth.

SOURCE: European Journal of Organic Chemistry (2002), (23), 3954-3965

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:321467

AB Four heparin pentasaccharides bearing either one (I) or two (II) pos. charged amino groups at the reducing end have been synthesized and evaluated for their antithrombin III mediated anti-Xa activity. The pos. charged groups were introduced to interact specifically with the neg. charged amino acid residues Glu113 and Asp117 of antithrombin III, which are located in the heparin binding site in close proximity to the reducing end of the saccharide. It turned out that the target compds. I and II exhibited relatively low anti-Xa activities, indicating unfavorable interactions between the new pentasaccharides and antithrombin III rather than the anticipated enhancement of assocn.

IT 511511-52-7P 511511-54-9P 511511-56-1P 511511-58-3P

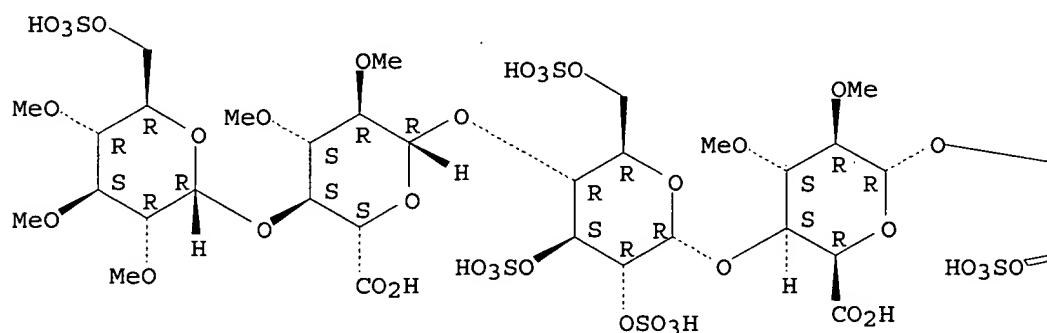
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and anti-factor Xa activity of heparin oligosaccharide analogs)

RN 511511-52-7 HCAPLUS

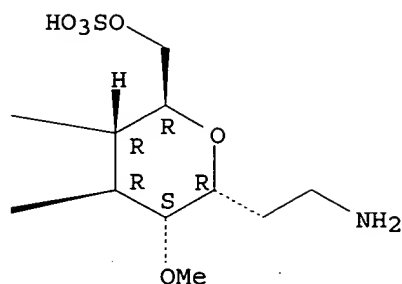
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-8-amino-2,6-anhydro-7,8-dideoxy-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

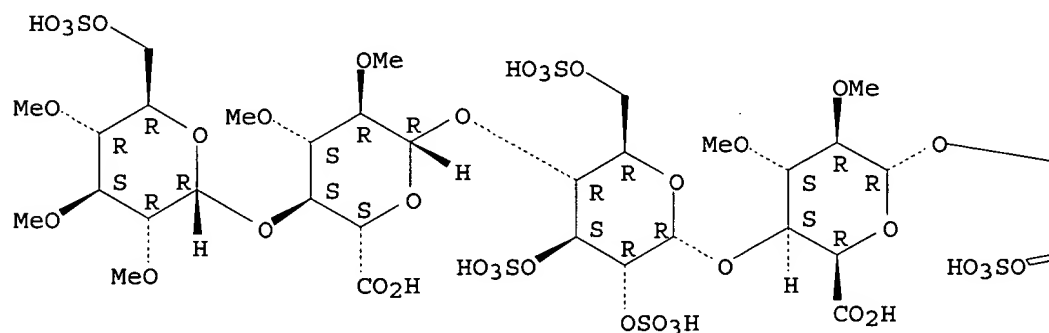


RN 511511-54-9 HCAPLUS

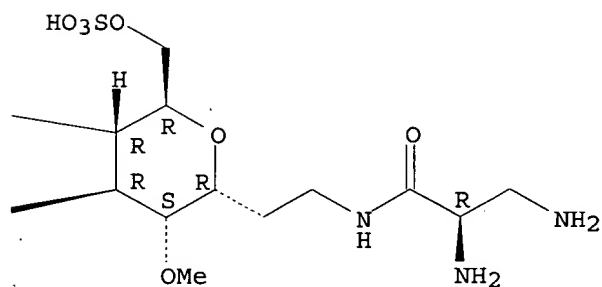
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-8-[[(2R)-2,3-diamino-1-oxopropyl]amino]-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

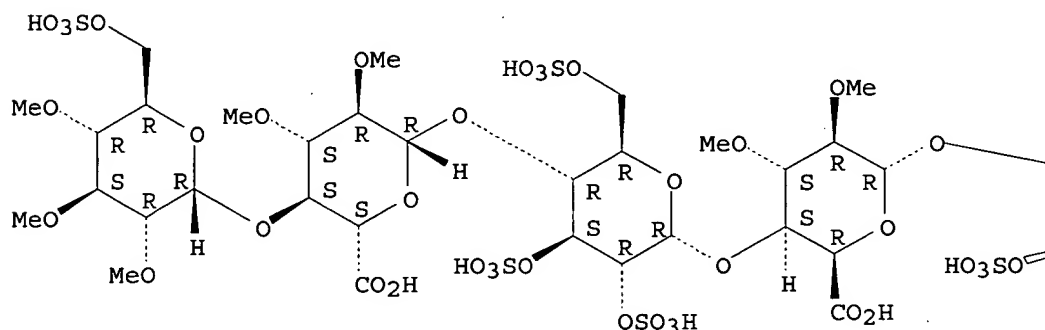


RN 511511-56-1 HCAPLUS

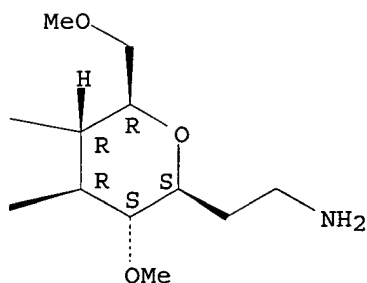
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-1-amino-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

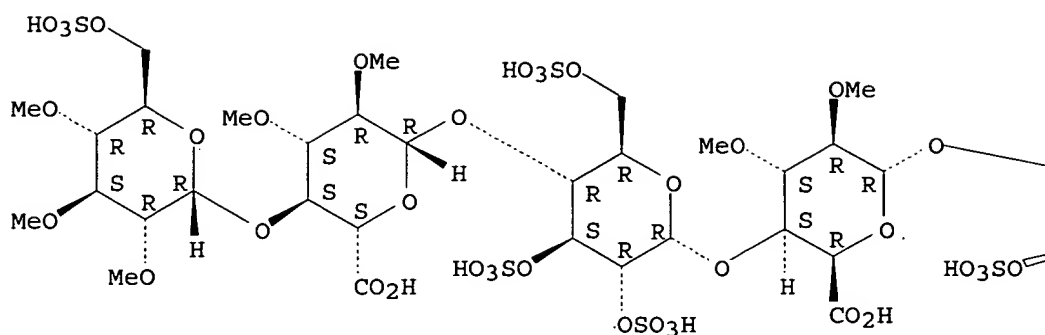


RN 511511-58-3 HCAPLUS

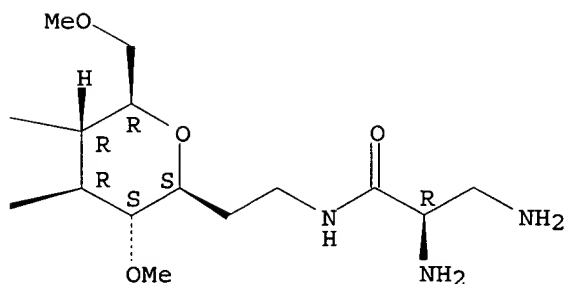
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-1-[[[(2R)-2,3-diamino-1-oxopropyl]amino]-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 511511-50-5P 511511-51-6P 511511-53-8P

511511-55-0P 511511-57-2P

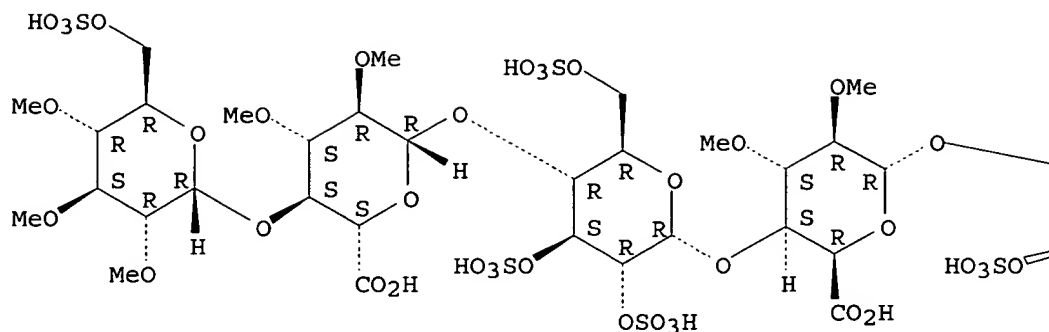
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and anti-factor Xa activity of heparin oligosaccharide analogs)

RN 511511-50-5 HCAPLUS

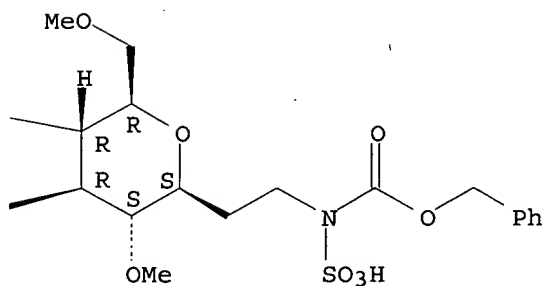
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-
glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-
(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-
2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-
dideoxy-4,8-di-O-methyl-1-[[(phenylmethoxy) carbonyl] sulfoamino]-,
5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

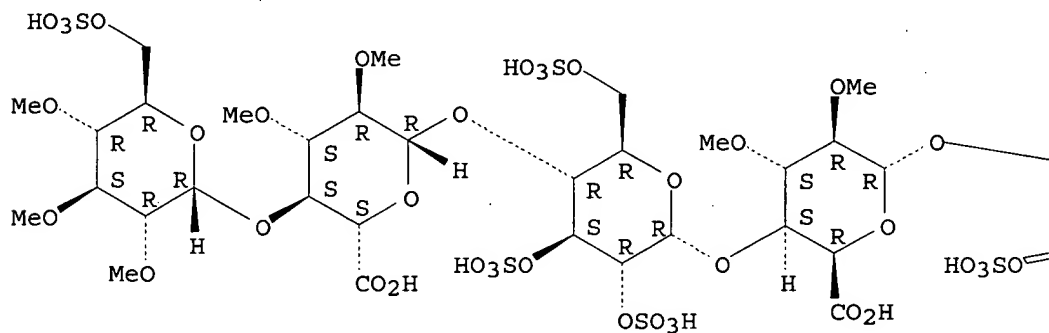


RN 511511-51-6 HCAPLUS

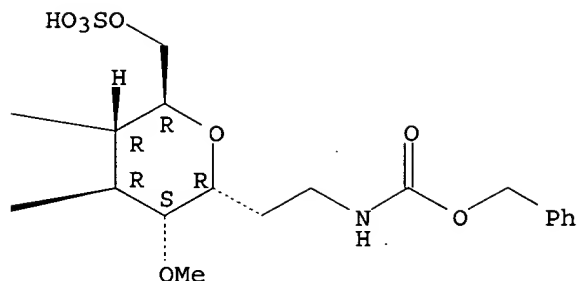
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[(phenylmethoxy) carbonyl] amino]-, 1,4-bis (hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

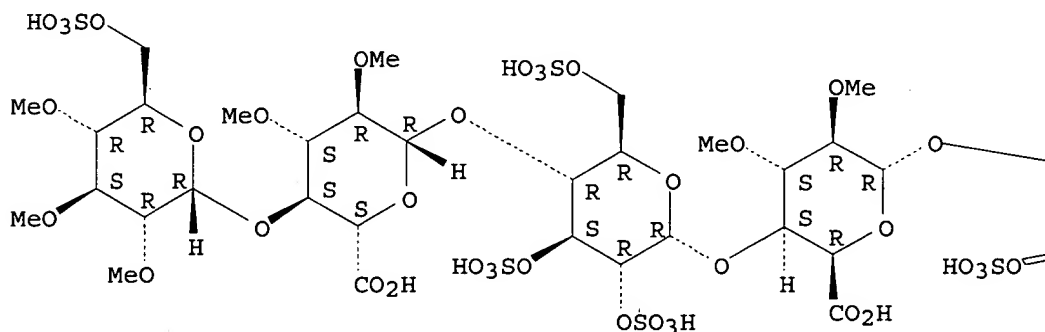


RN 511511-53-8 HCAPLUS

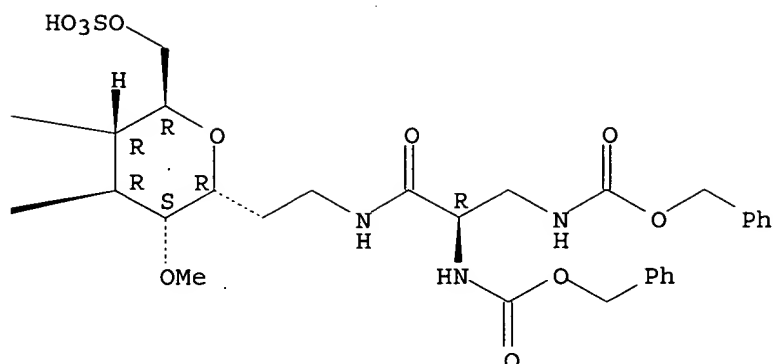
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[(2R)-1-oxo-2,3-bis[[(phenylmethoxy) carbonyl] amino]propyl]amino]-, 1,4-bis(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

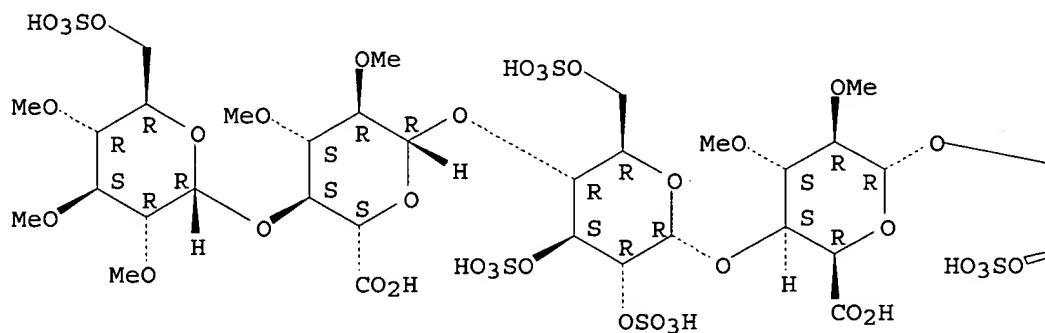


RN 511511-55-0 HCAPLUS

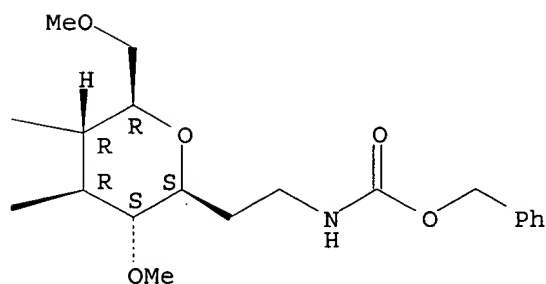
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-1-[[(phenylmethoxy) carbonyl] amino]-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

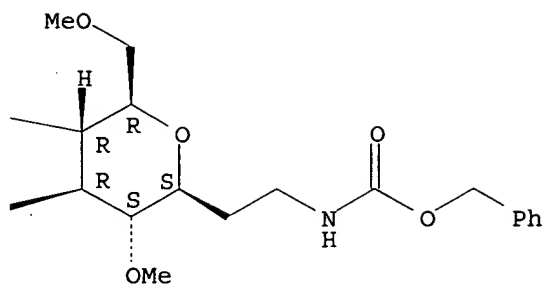
PAGE 1-A



PAGE 1-B



PAGE 1-B

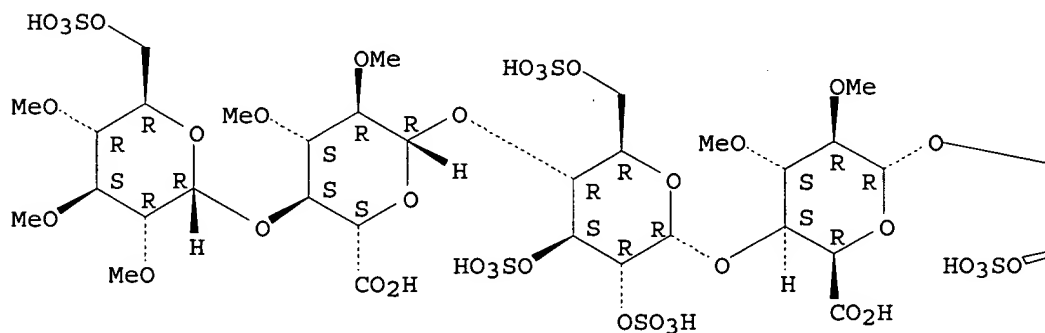


RN 511511-57-2 HCAPLUS

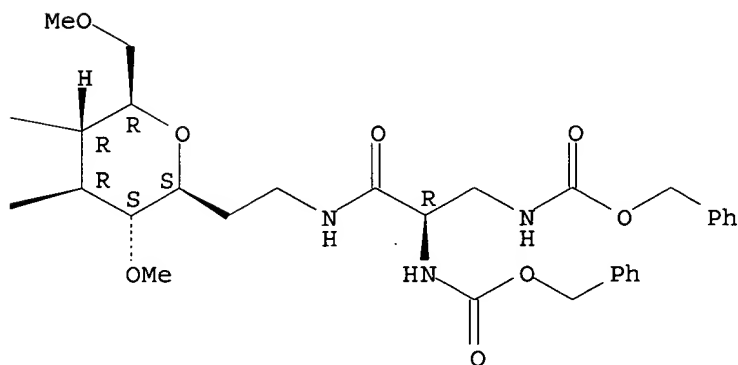
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-1-[[(2R)-1-oxo-2,3-bis[[(phenylmethoxy) carbonyl] amino]propyl]amino]-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

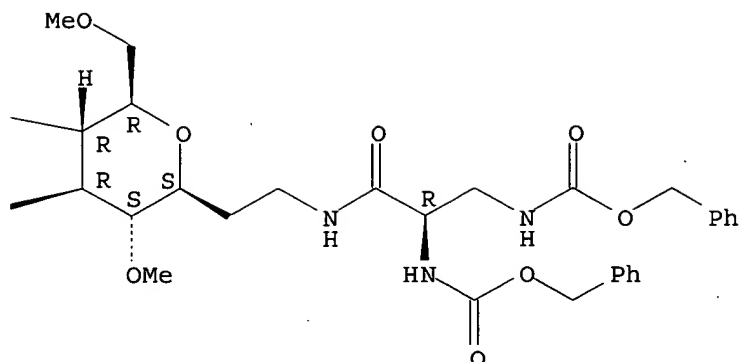
PAGE 1-A



PAGE 1-B



PAGE 1-B



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:846295 HCAPLUS

DOCUMENT NUMBER: 138:221772

TITLE: A first total synthesis of a novel sulfated ganglioside, 3'-O-sulfo-GM1b

AUTHOR(S): Komori, Tatsuki; Kondo, Saori; Ando, Hironume; Ishida, Hideharu; Kiso, Makoto

CORPORATE SOURCE: Department of Applied Bio-organic Chemistry, Gifu University, Gifu, 501-1193, Japan

SOURCE: Carbohydrate Research (2002), 337(18), 1679-1686
CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:221772

AB A first total synthesis of a novel sulfated ganglioside, 3'-O-sulfo-GM1b, is described. The suitably protected gangliotriose (GgOSE3) deriv., 2-(trimethylsilyl)ethyl (2-acetamido-4,6-O-benzylidene-2-deoxy-.beta.-D-galactopyranosyl)-(1.fwdarw.4)-(2,6-di-O-benzyl-3-O-p-methoxybenzyl-.beta.-D-galactopyranosyl)-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-glucopyranoside was glycosylated with the .alpha.-NeuAc-(2.fwdarw.3)-galactose donor to give the protected GM1b oligosaccharide (95%). After proper manipulation of the protecting groups, the oligosaccharide was converted into the target ganglioside by the successive introduction of the ceramide and sulfo groups, followed by complete deprotection.

IT 500868-46-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

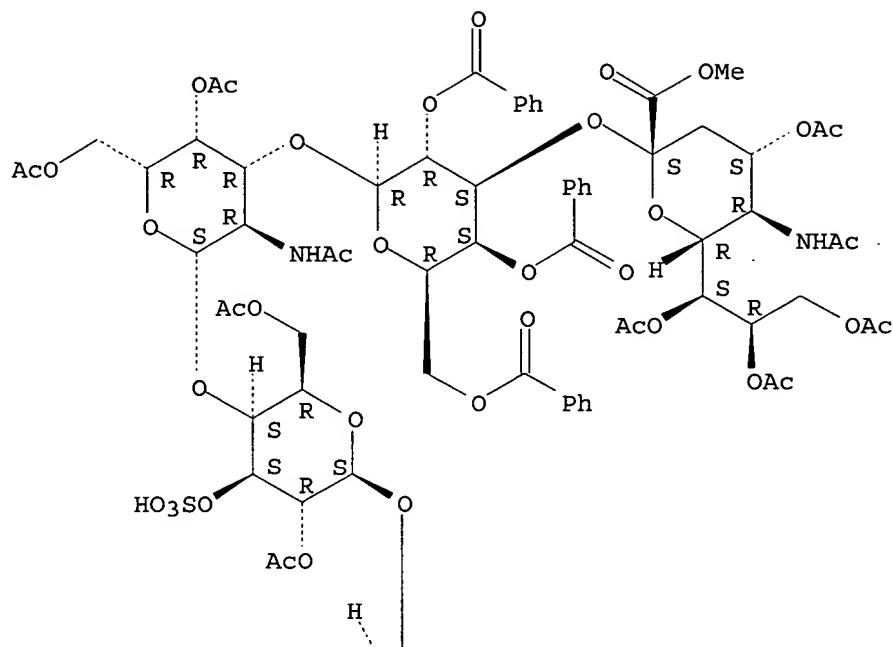
(prepn. of a sulfated ganglioside, 3'-O-sulfo-GM1b, via protecting group manipulations)

RN 500868-46-2 HCAPLUS

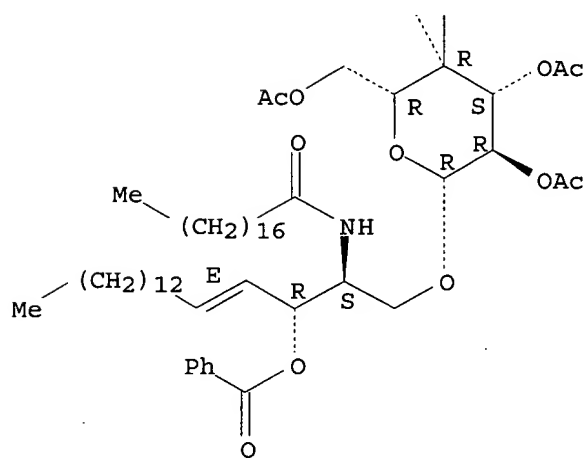
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4,6-di-O-acetyl-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy)methyl]-2-(benzoyloxy)-3-heptadecenyl]-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A



● Na

IT 500868-27-9P
RL: SPN (Synthetic preparation); PREP (Preparation)

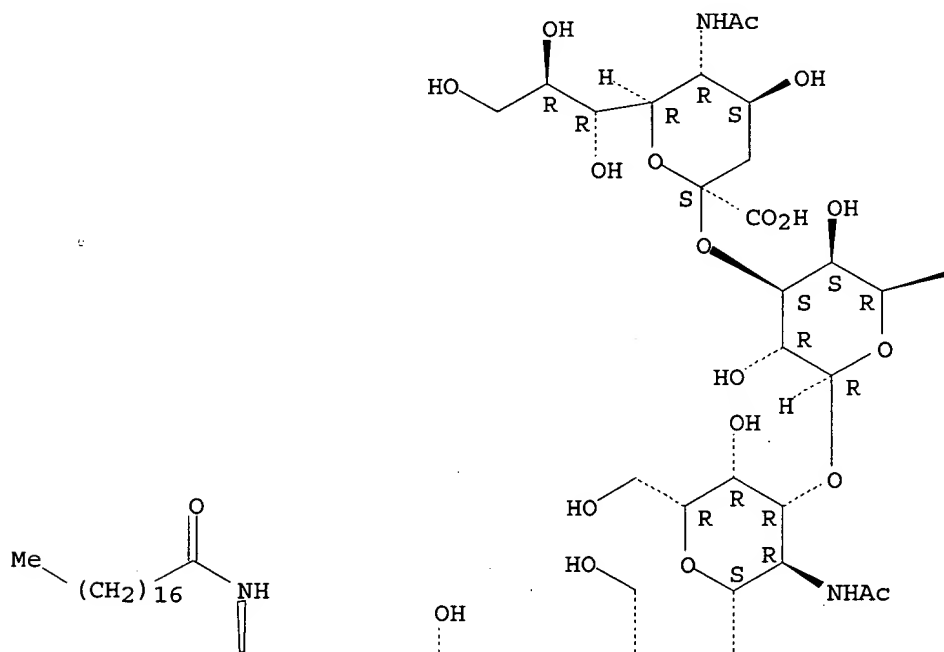
(prepn. of a sulfated ganglioside, 3'-O-sulfo-GM1b, via protecting
group manipulations)

RN 500868-27-9 HCAPLUS

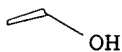
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-
(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-
deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-
galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy)methyl]-2-
hydroxy-3-heptadecenyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

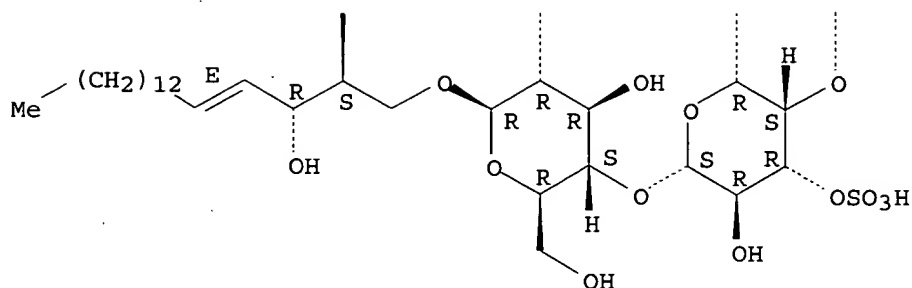
PAGE 1-A



PAGE 1-B



PAGE 2-A



● 2 Na

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:561436 HCAPLUS

DOCUMENT NUMBER: 133:310090

TITLE: First total synthesis of sialylated and sulfated Lewisx mucin Core 2 structures as potential tumor associated antigens

AUTHOR(S): Huang, B.-G.; Jain, R. K.; Locke, R. D.; Alderfer, J. L.; Tabaczynski, W. A.; Matta, K. L.

CORPORATE SOURCE: Molecular & Cellular Biophysics, Roswell Park Cancer Institute, Buffalo, NY, 14263, USA

SOURCE: Tetrahedron Letters (2000), 41(33), 6279-6284

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:310090

AB Two branched core structures, (3-O-SO₃Na)Gal.beta.1,4(Fuc.alpha.1,3)GlcNAc.beta.1,6(NeuAc.alpha.2,3Gal.beta.1,3)GalNAc.alpha.OMe and its positional isomer NeuAc.alpha.2,3Gal.beta.1,4(Fuc.alpha.1,3)GlcNAc.beta.1,6(3-OSO₃Na-Gal.beta.1,3)GalNAc.alpha.OMe, were chem. synthesized for the first time as potential tumor assocd. antigens.

IT 302599-28-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

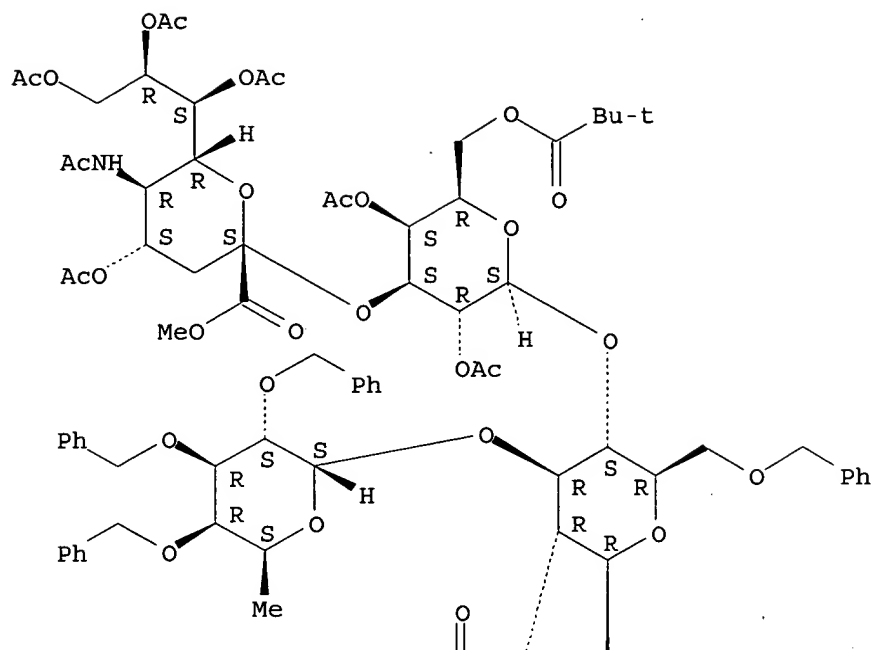
(total synthesis of sialylated and sulfated Lewisx mucin core structures as potential tumor assocd. antigens)

RN 302599-28-6 HCAPLUS

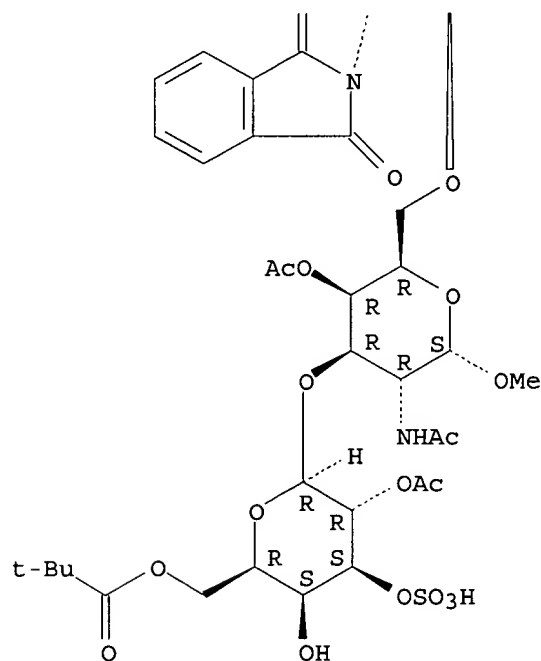
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Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



IT 302599-13-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (total synthesis of sialylated and sulfated Lewisx mucin core)

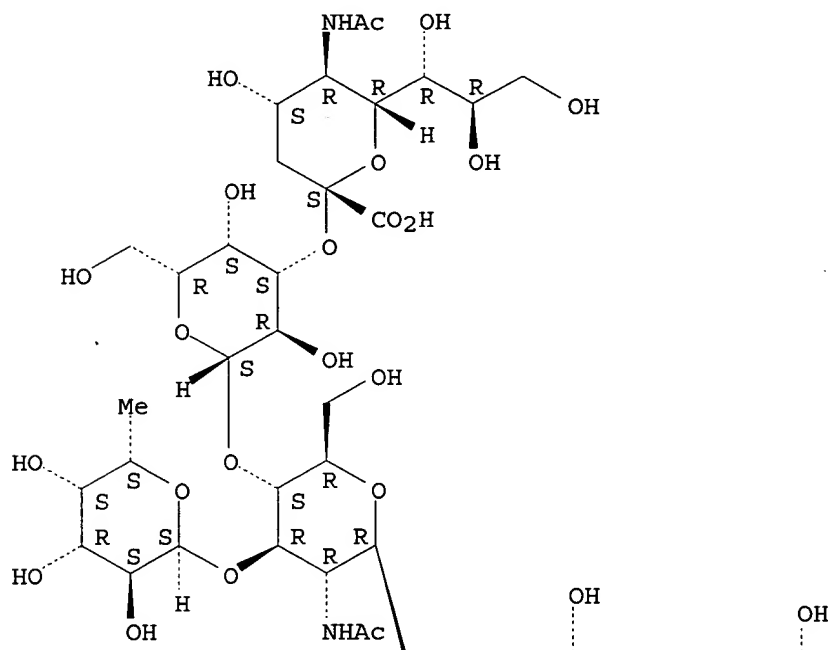
structures as potential tumor assocd. antigens)

RN 302599-13-9 HCAPLUS

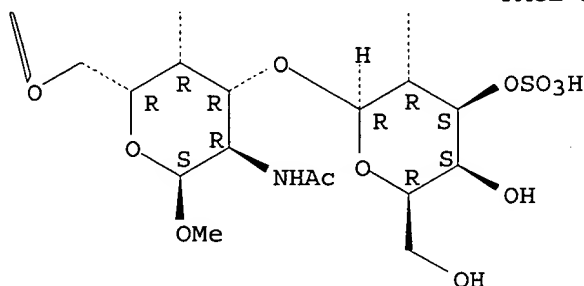
CN .alpha.-D-Galactopyranoside, methyl O-(N-acetyl-.alpha.-neuraminosyl)-
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 L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.6)-O-[3-O-sulfo-.beta.-D-galactopyranosyl-
 (1.fwdarw.3)]-2-(acetylamino)-2-deoxy-, monosodium salt (9CI) (CA INDEX
 NAME)

Absolute stereochemistry. Rotation (+).

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● Na

REFERENCE COUNT:

14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:592289 HCAPLUS

DOCUMENT NUMBER: 129:312420

TITLE: Sulfated di-, tri- and tetraantennary N-glycans in human Tamm-Horsfall glycoprotein

AUTHOR(S): Van Rooijen, Johannes J. M.; Kamerling, Johannes P.; Vliegenthart, Johannes F. G.

CORPORATE SOURCE: Department of Bio-Organic Chemistry, Utrecht University, Neth.

SOURCE: European Journal of Biochemistry (1998), 256(2), 471-487

CODEN: EJBCAI; ISSN: 0014-2956

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The primary structures of 32 sulfated di-, tri- and tetraantennary N-glycans of human Tamm-Horsfall glycoprotein (THP) have been detd. THP was isolated from the urine of one healthy male donor. The intact carbohydrate chains were released by PNGase-F and fractionated via FPLC on Resource Q, HPLC on LiChrosorb-NH₂, and high-pH anion-exchange chromatog. on CarboPac PA-1. Characterizations were performed using 500-MHz and 600-MHz ¹H-NMR spectroscopy, in combination with sialidase treatments. The type of characterized N-glycans ranged from monosulfated to trisulfated N-glycans, whereby the sulfate groups were present as 3-O-sulfated Gal (Gal3S) and 4-O-sulfated GalNAc (Gal-NAc4S). A compilation of the established structures is given.

IT 130847-64-2 145288-68-2 145288-69-3

147998-52-5 214825-70-4 214825-73-7

214825-75-9 214825-77-1 214825-79-3

214825-80-6 214825-81-7 214825-83-9

214825-85-1 214825-91-9 214825-93-1

214825-96-4 214825-97-5 214825-98-6

214825-99-7 214826-00-3 214826-01-4

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214826-05-8 214826-06-9 214826-07-0

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

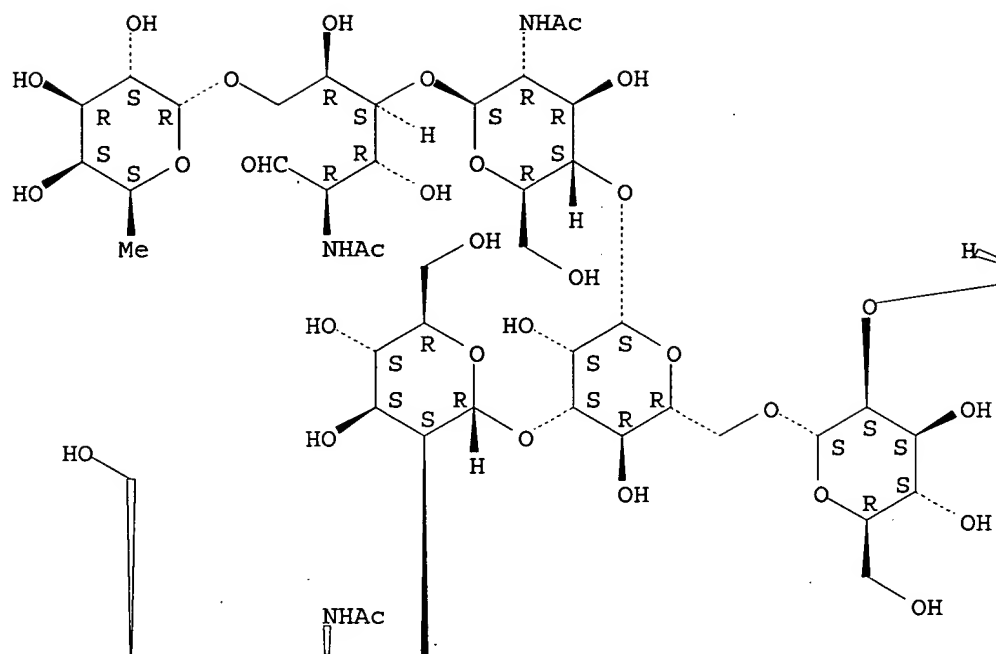
(characterization of sulfated N-glycans of human Tamm-Horsfall glycoprotein)

RN 130847-64-2 HCAPLUS

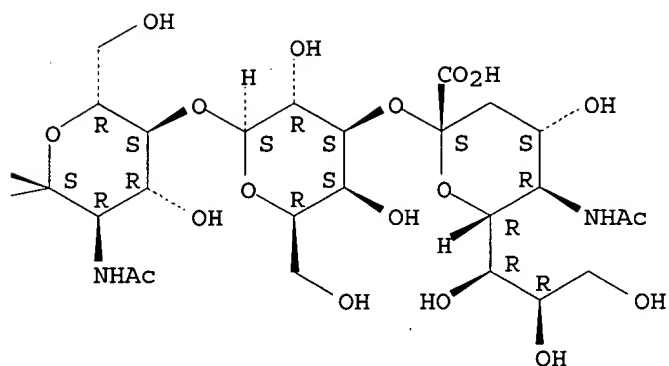
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Absolute stereochemistry.

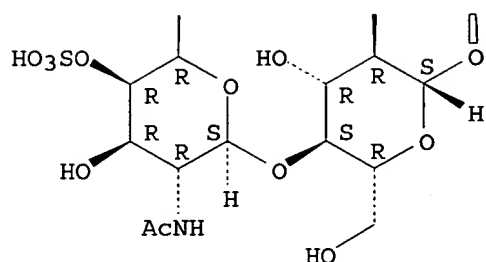
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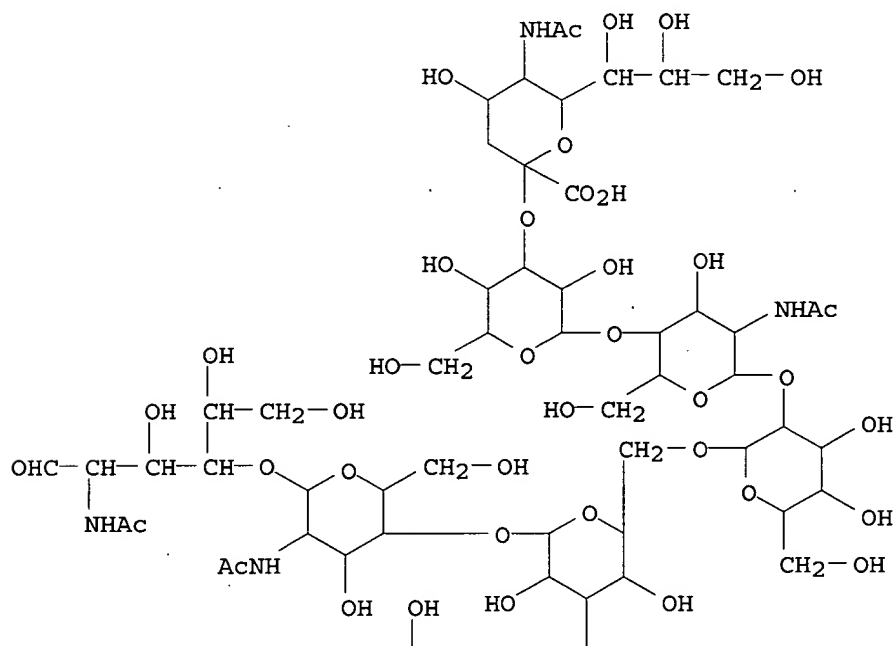
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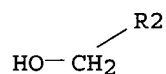
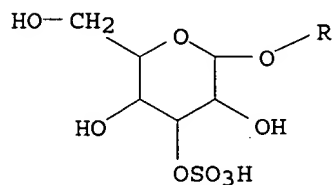
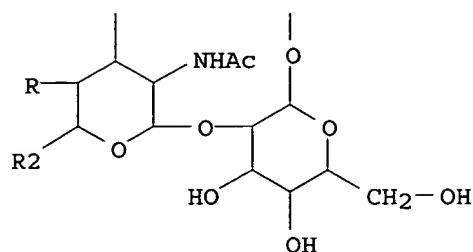
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(CA INDEX NAME)

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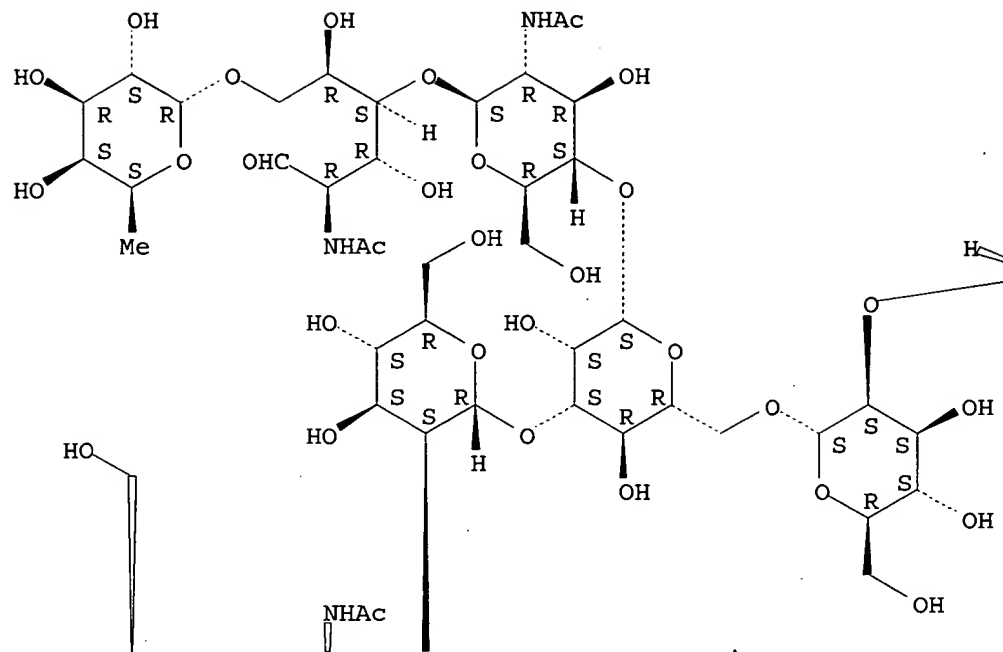
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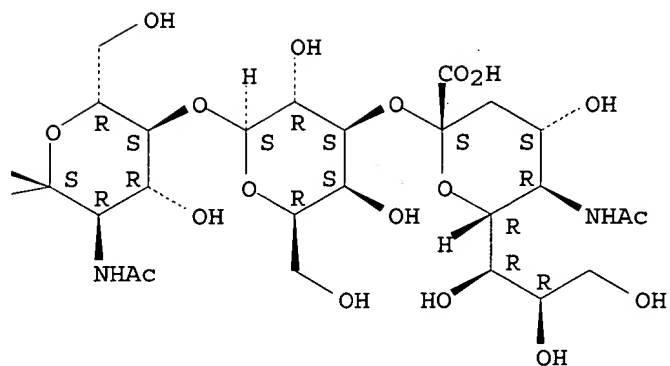
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Absolute stereochemistry.

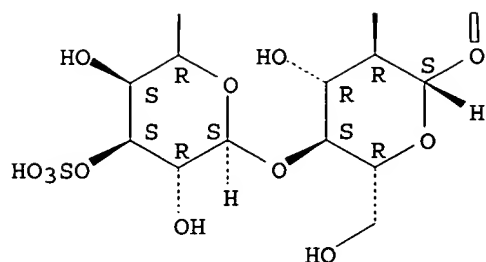
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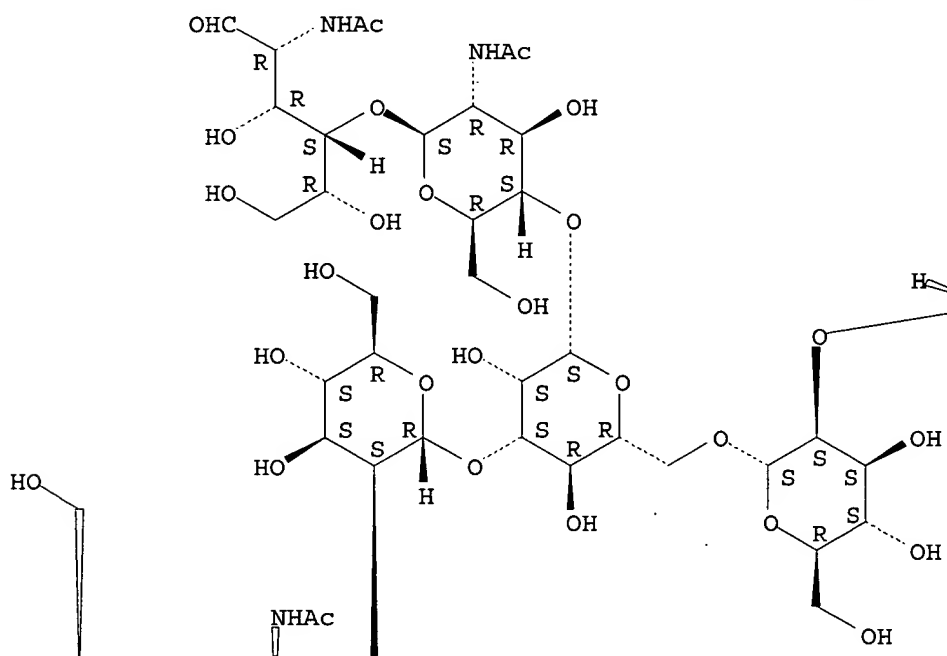
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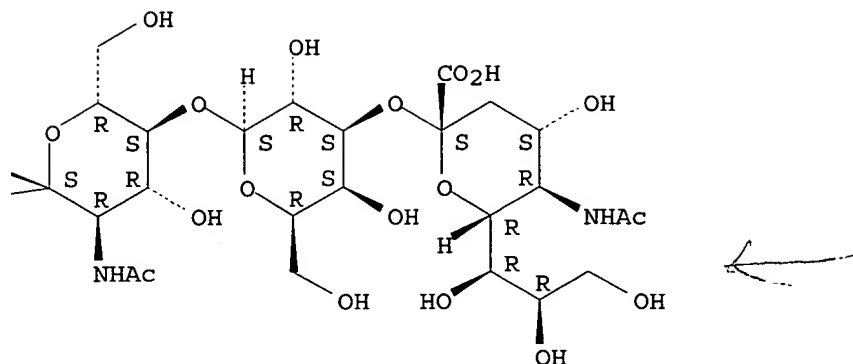
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Absolute stereochemistry.

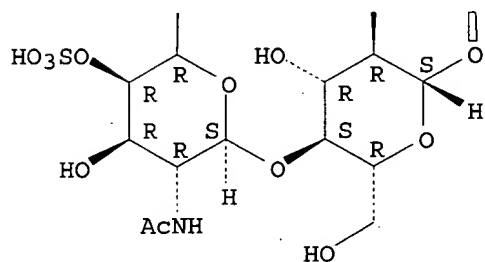
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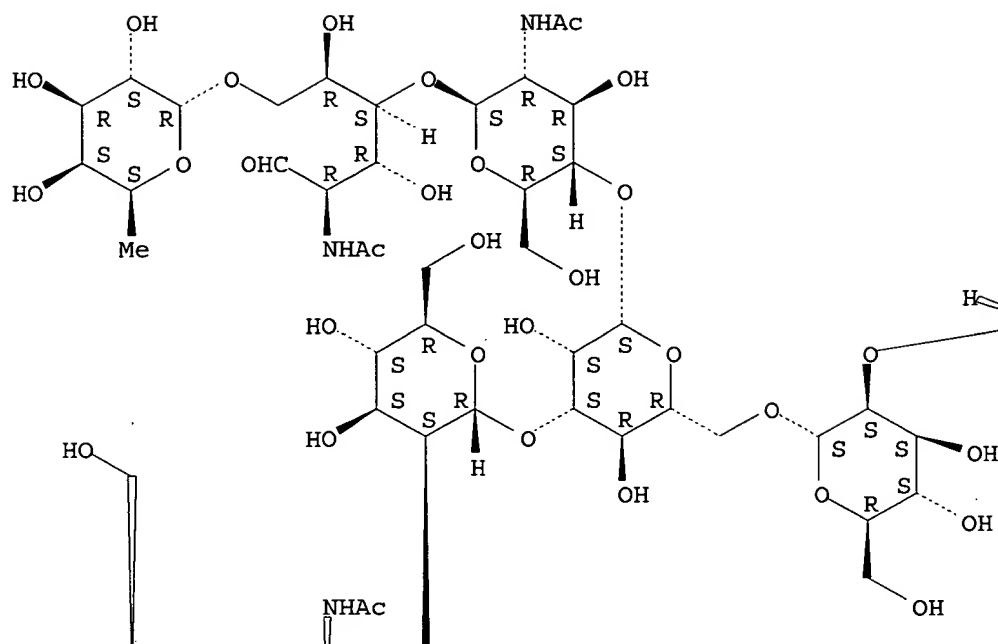


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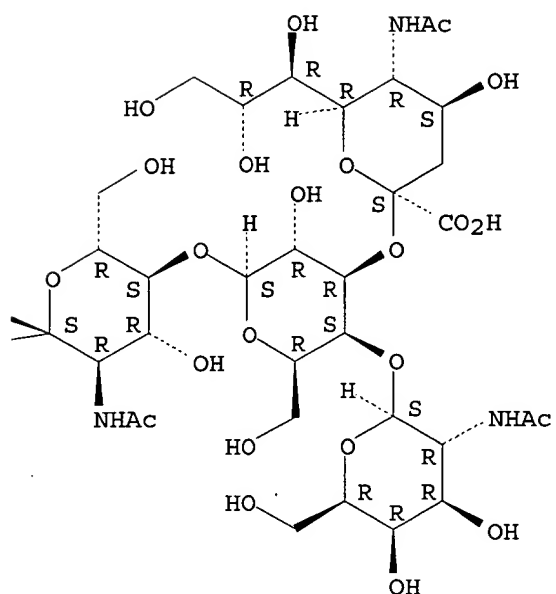
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(CA INDEX NAME)

Absolute stereochemistry.

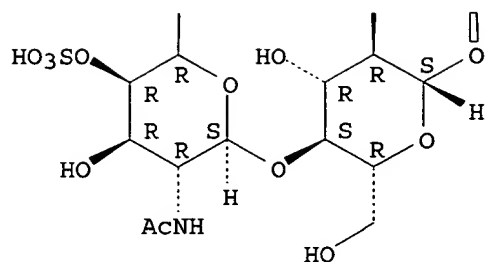
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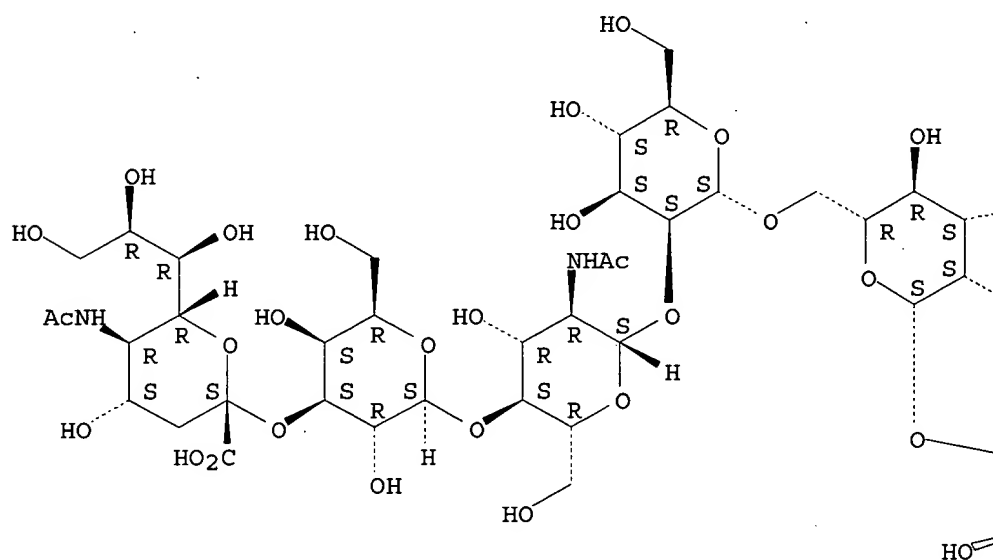


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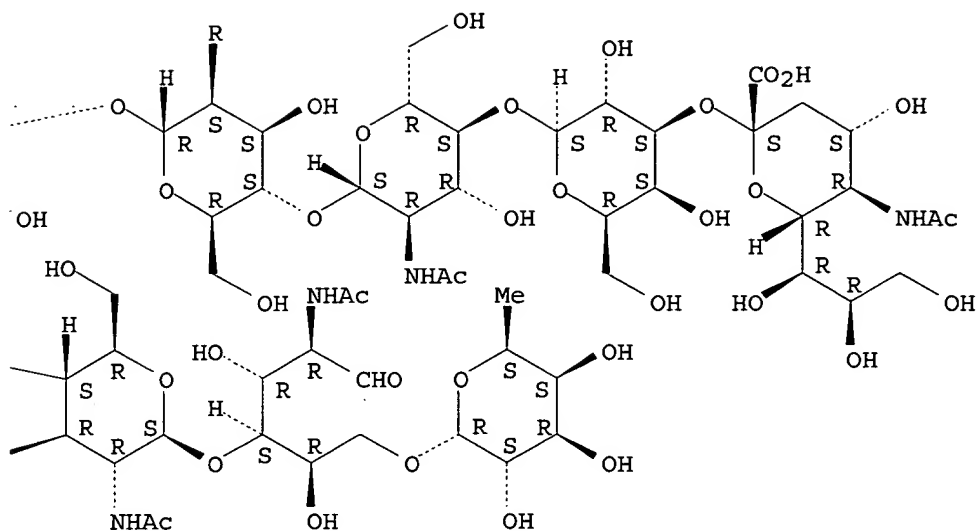
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(CA INDEX NAME)

Absolute stereochemistry.

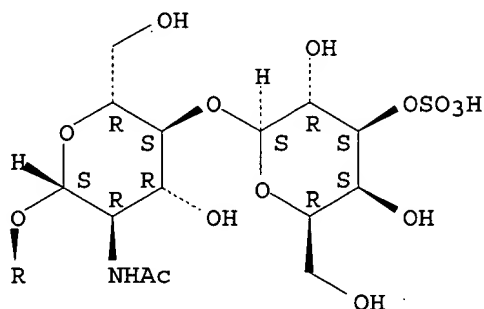
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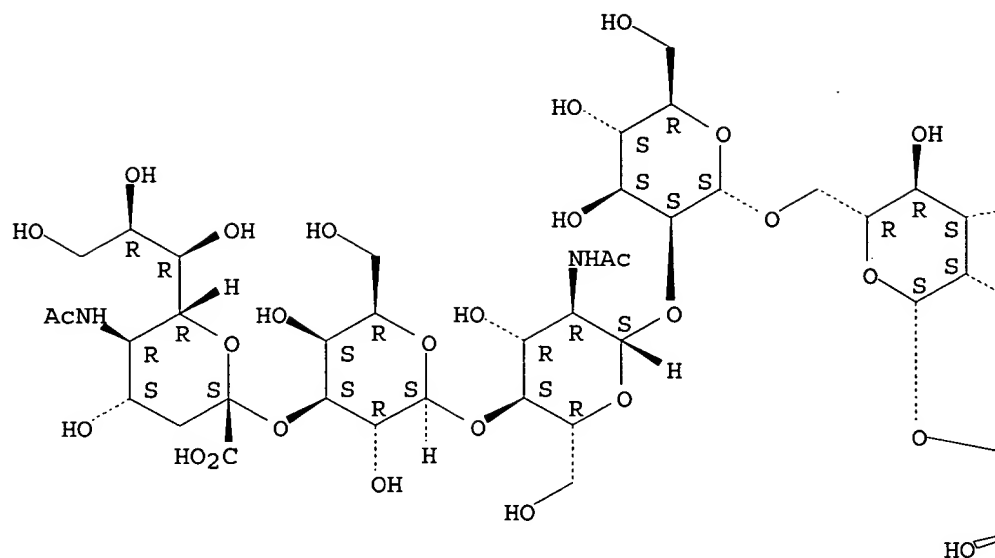


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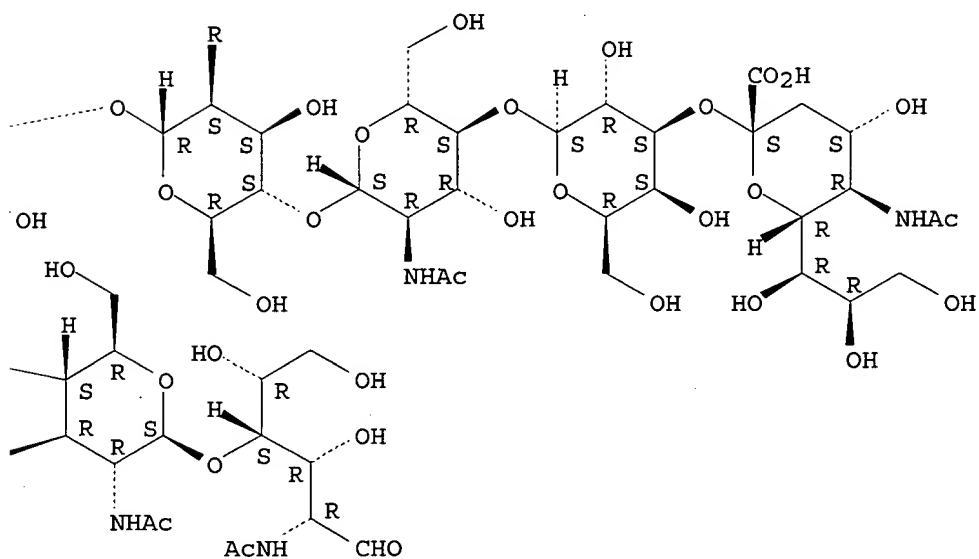
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Absolute stereochemistry.

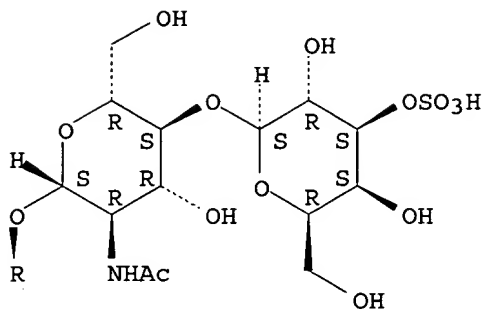
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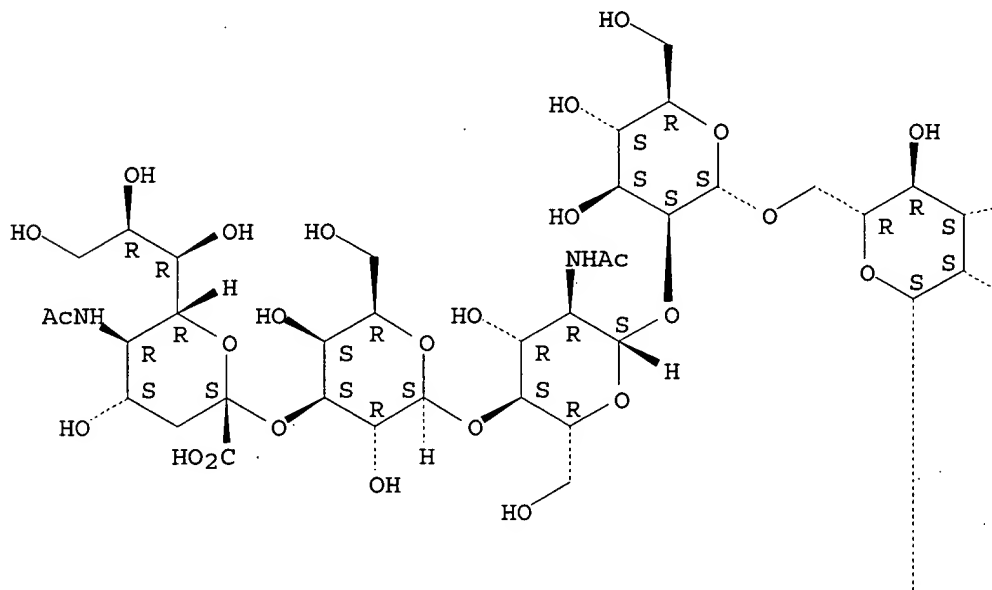


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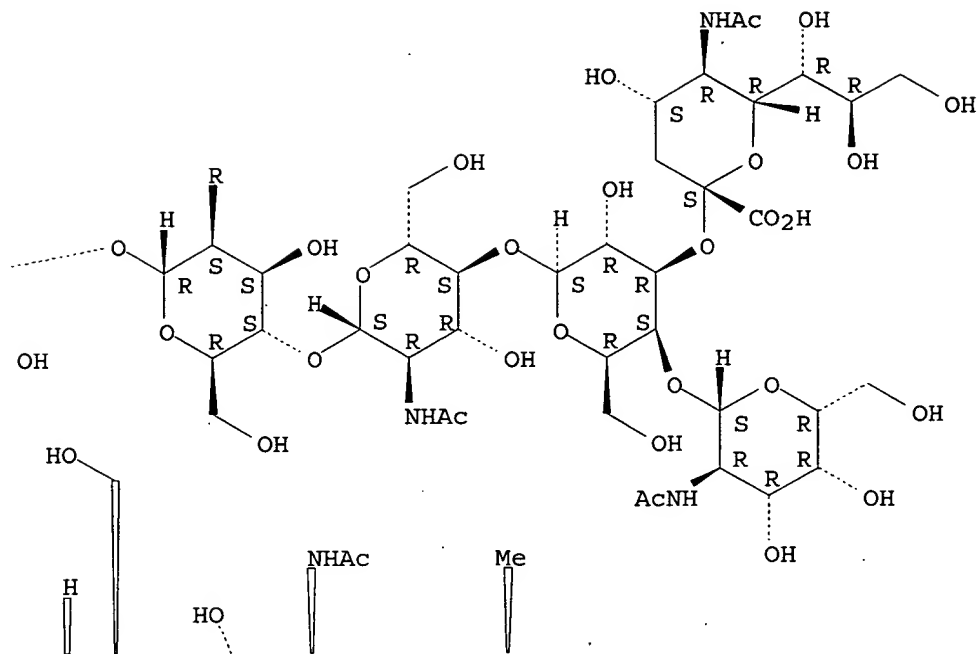
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(CA INDEX NAME)

Absolute stereochemistry.

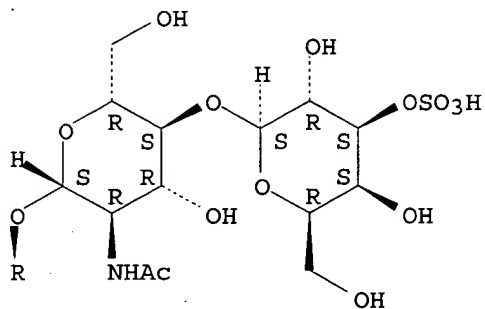
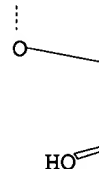
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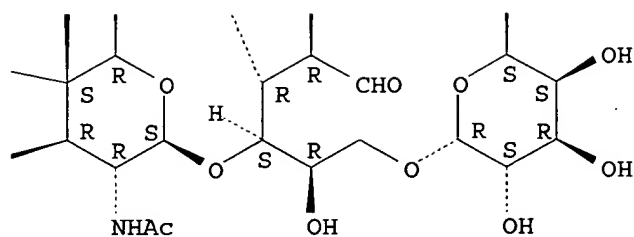
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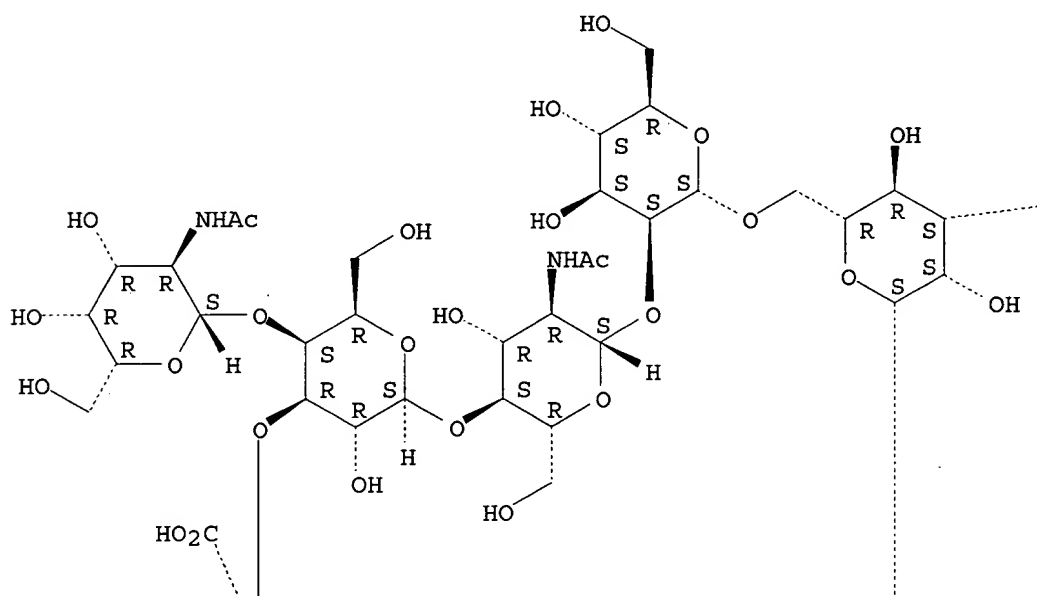


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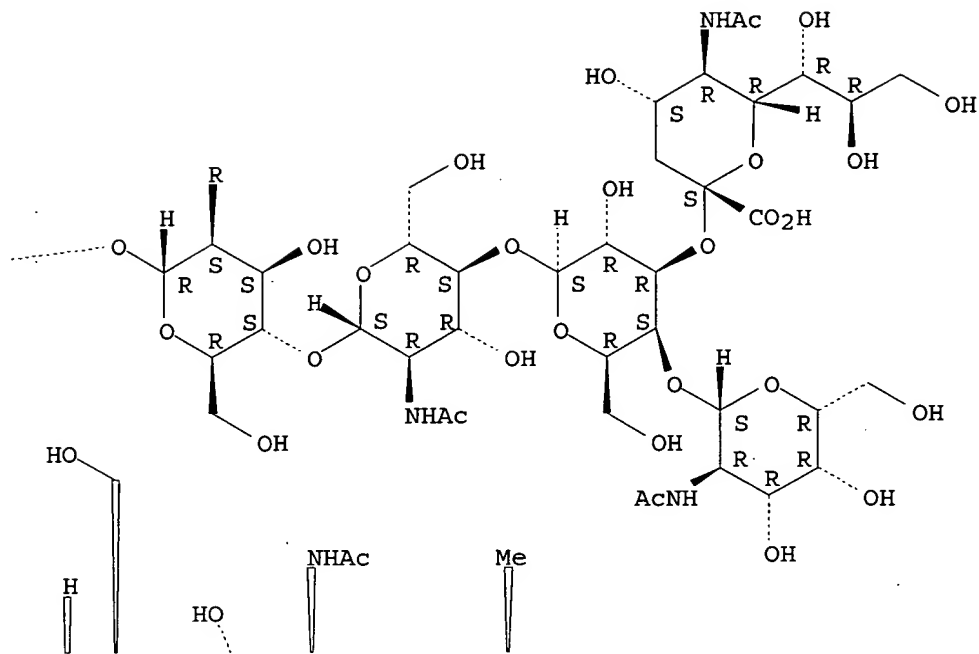
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Absolute stereochemistry.

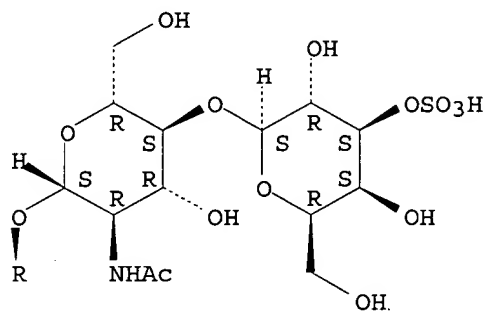
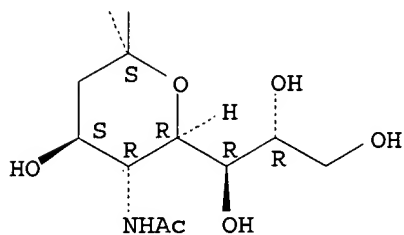
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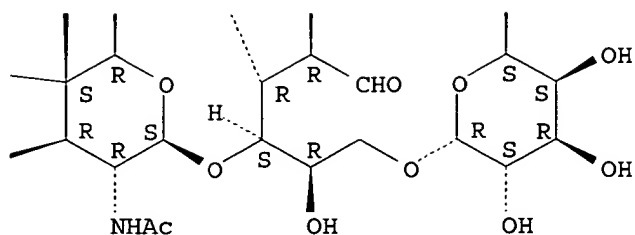
PAGE 1-B



PAGE 2-A



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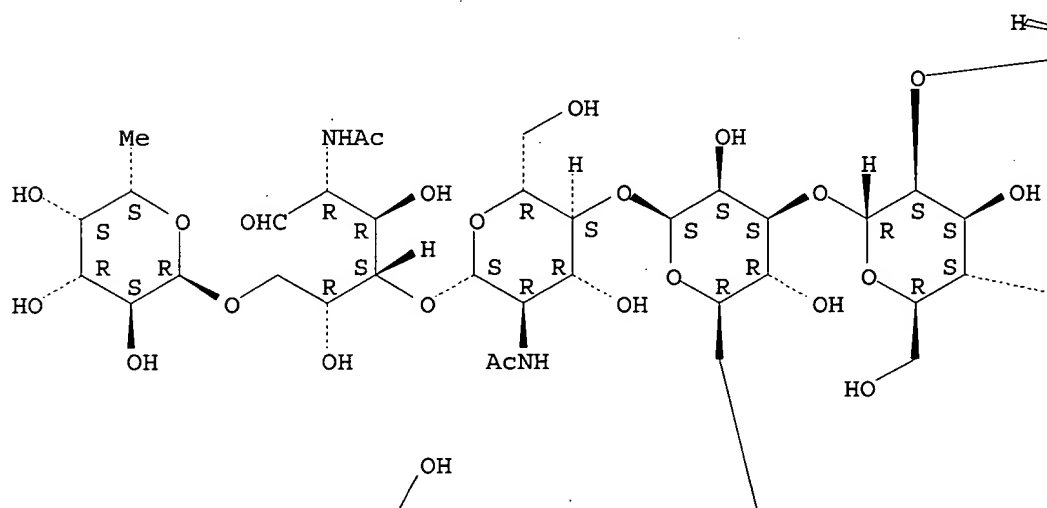


RN 214825-80-6 HCAPLUS

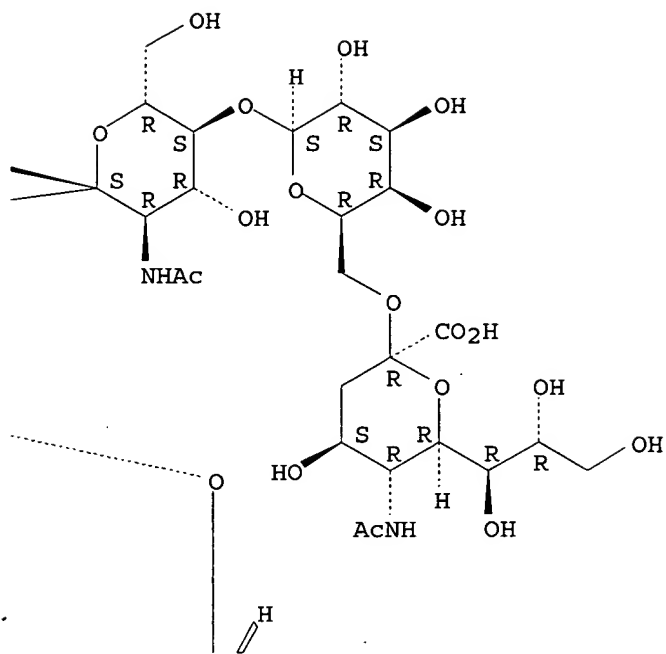
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

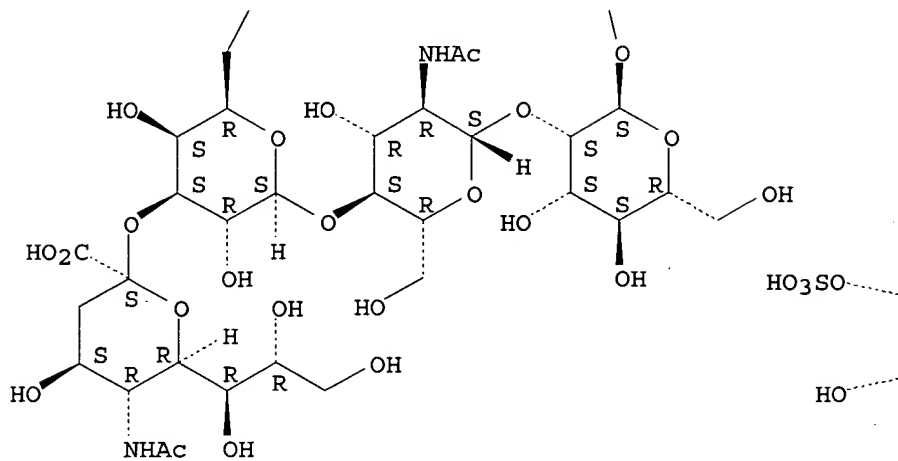
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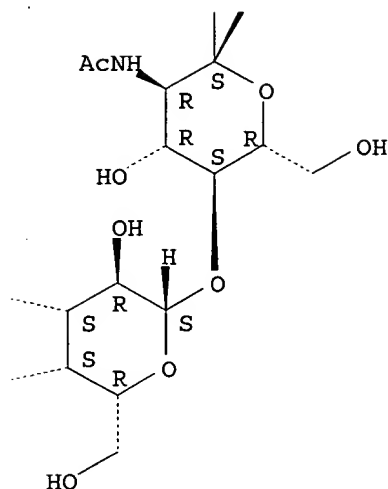
PAGE 1-B



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PAGE 2-B

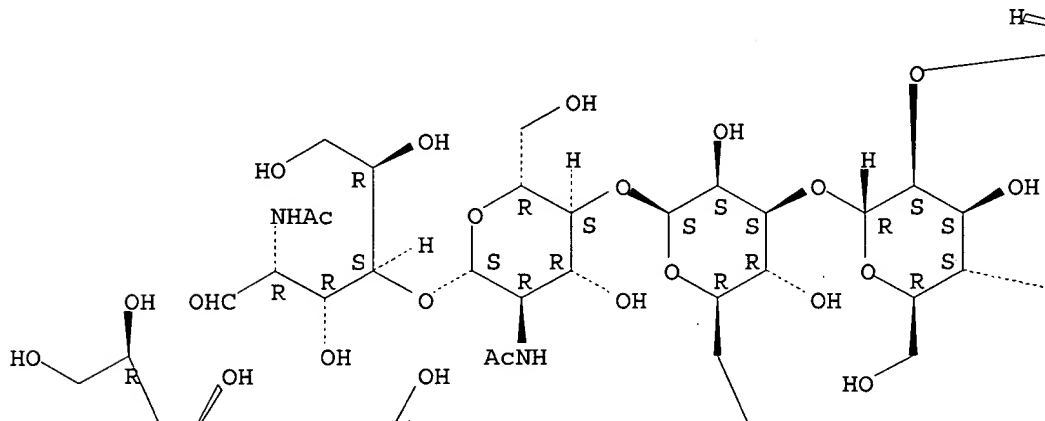


RN 214825-81-7 HCAPLUS

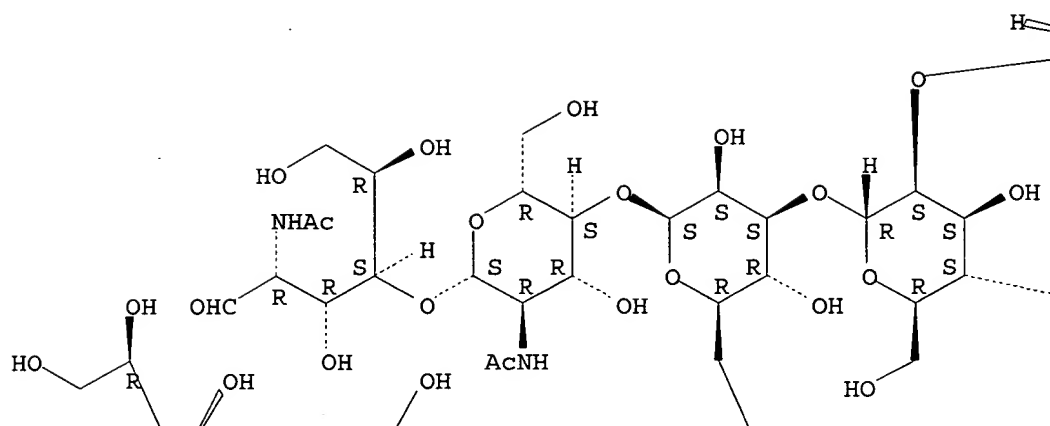
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

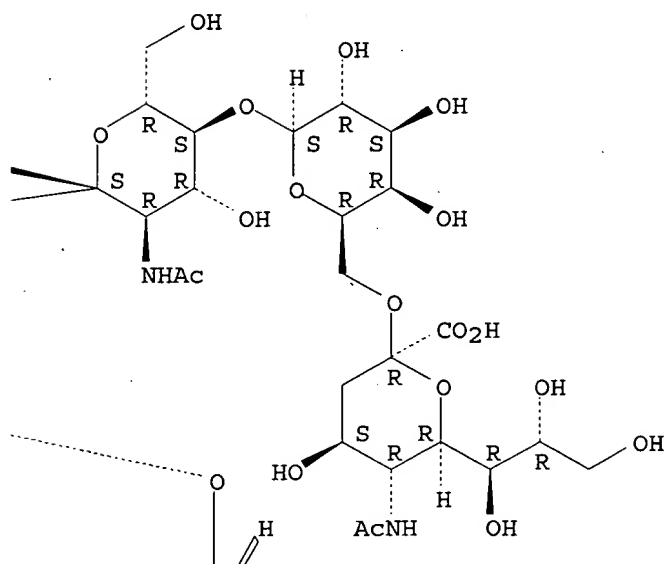
PAGE 1-A



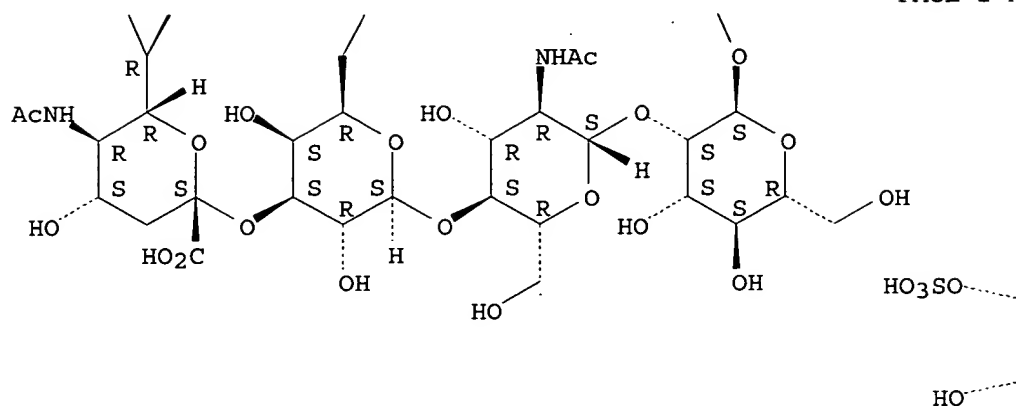
PAGE 1-A



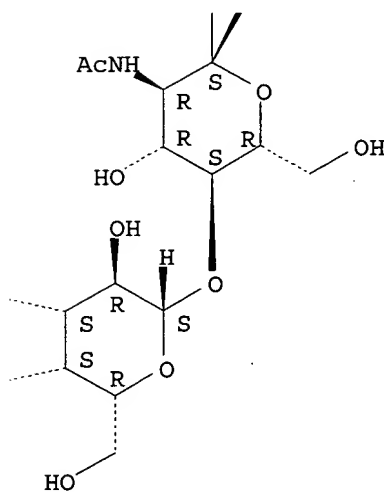
PAGE 1-B



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PAGE 2-B

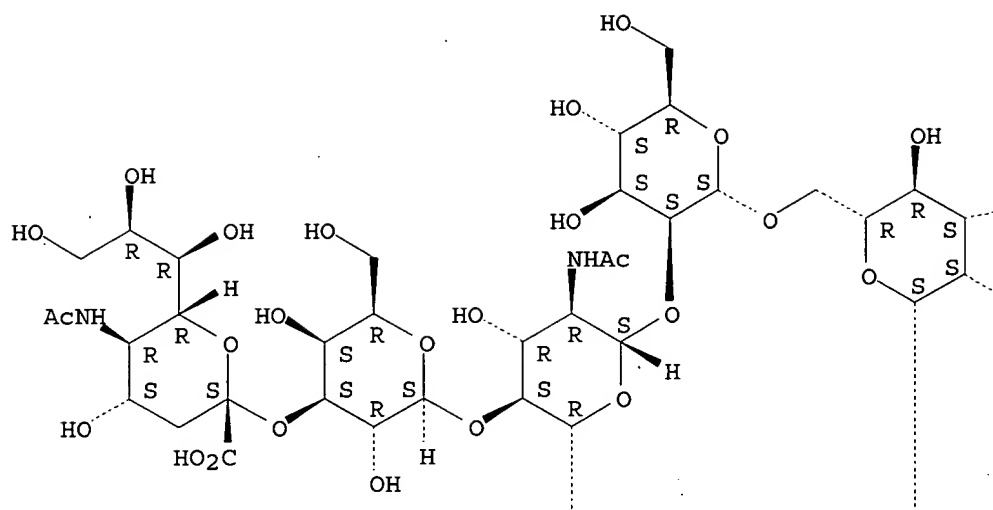


RN 214825-83-9 HCAPLUS

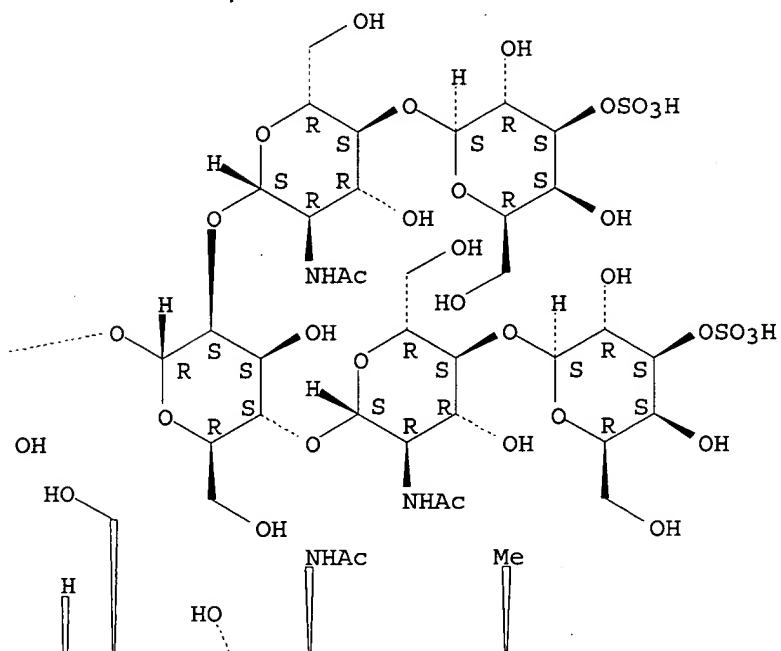
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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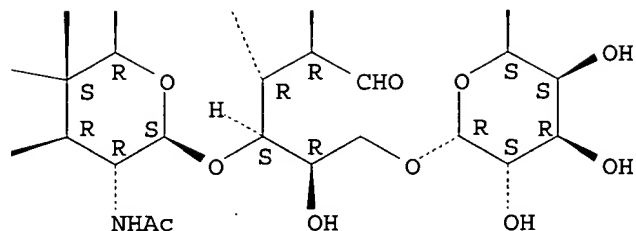
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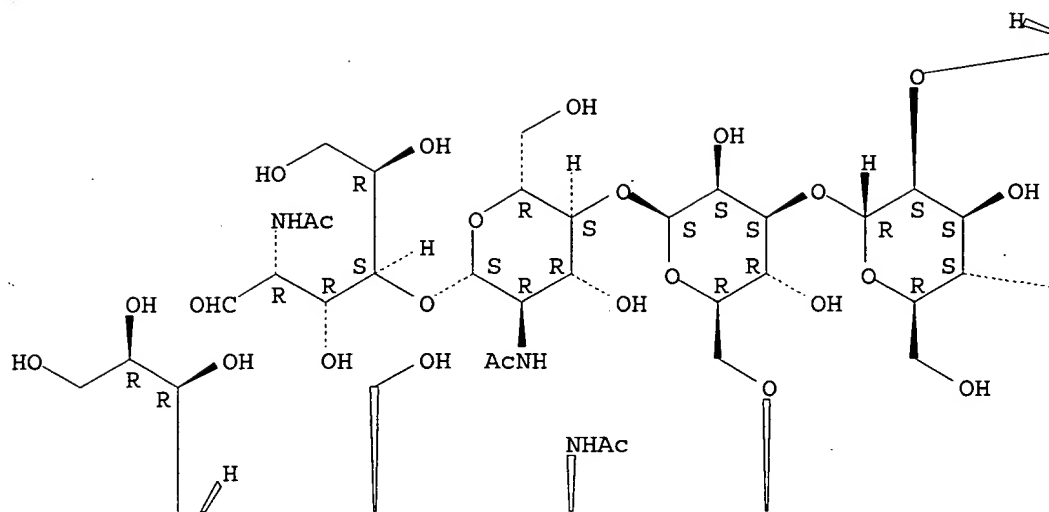


RN 214825-85-1 HCAPLUS

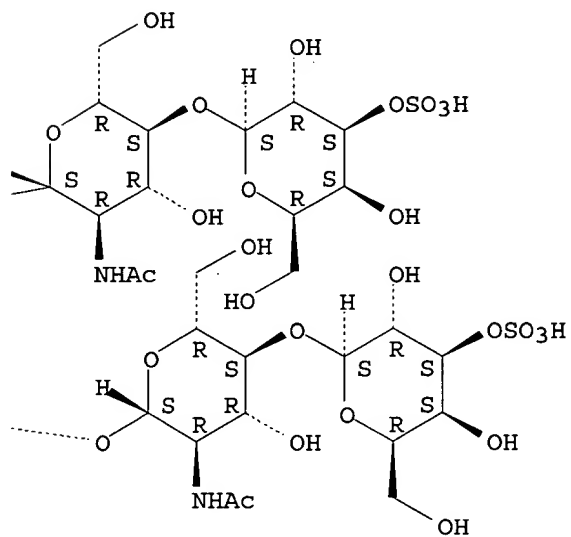
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

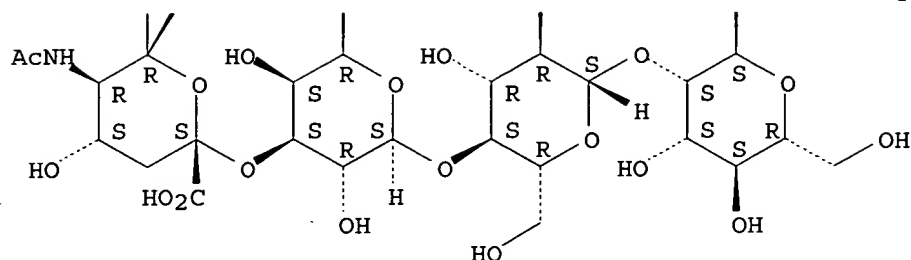
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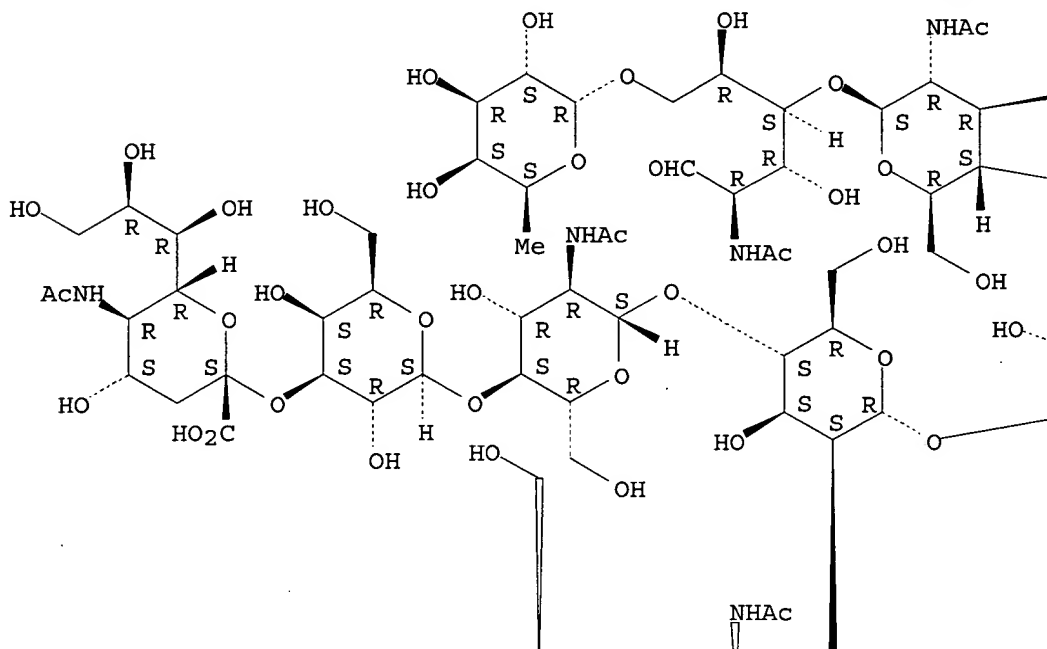


RN 214825-91-9 HCAPLUS

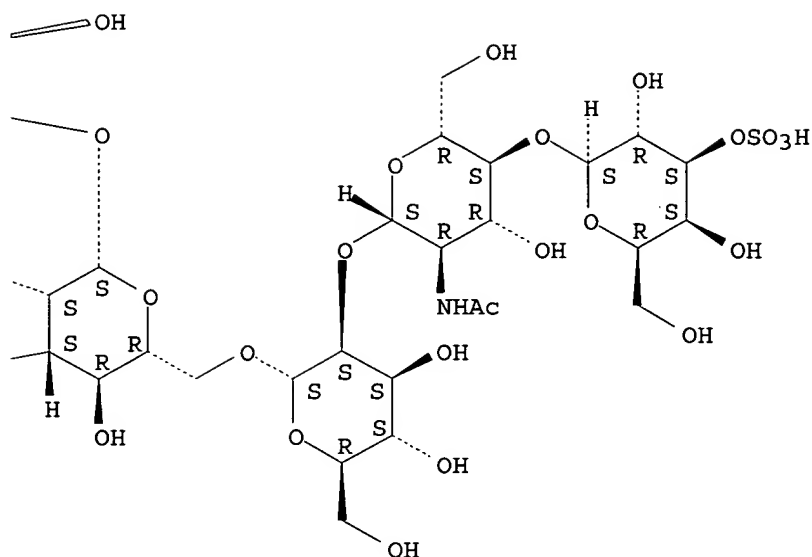
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

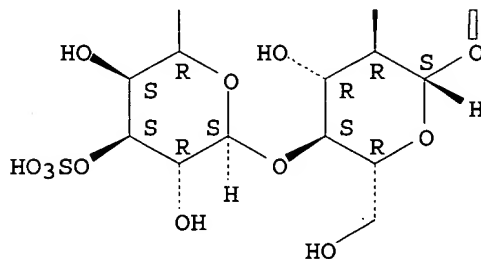
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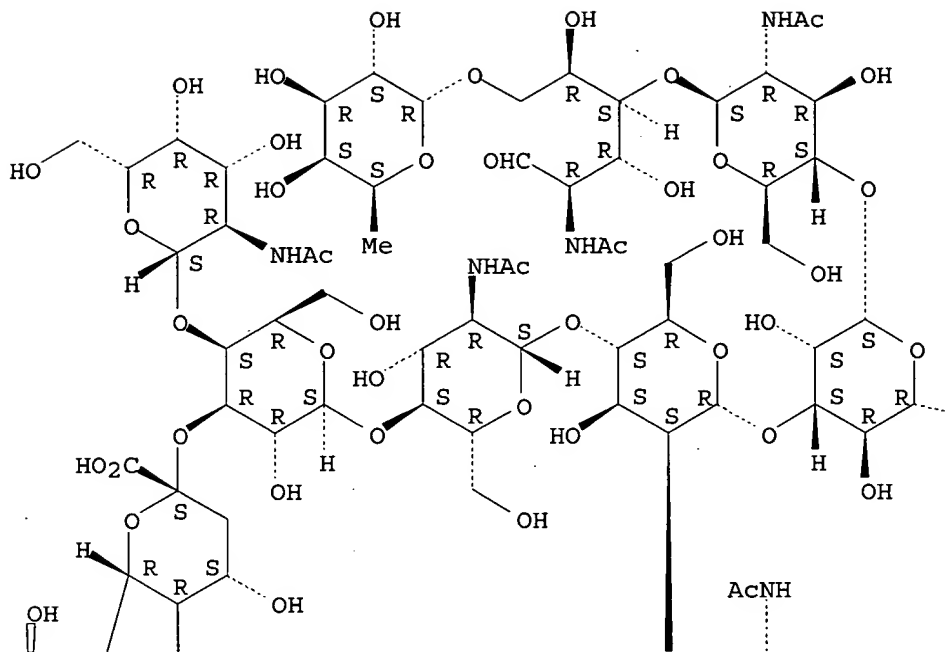
PAGE 2-A



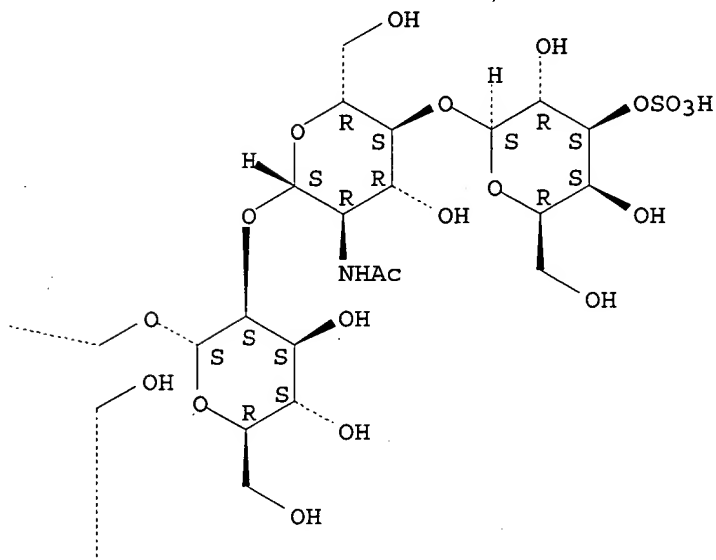
RN 214825-93-1 HCAPLUS
 CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

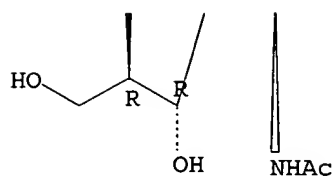
Absolute stereochemistry.

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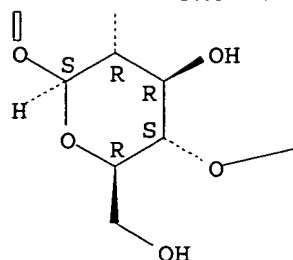


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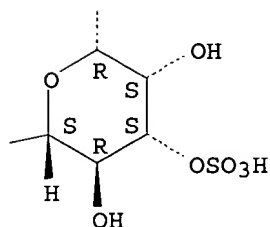




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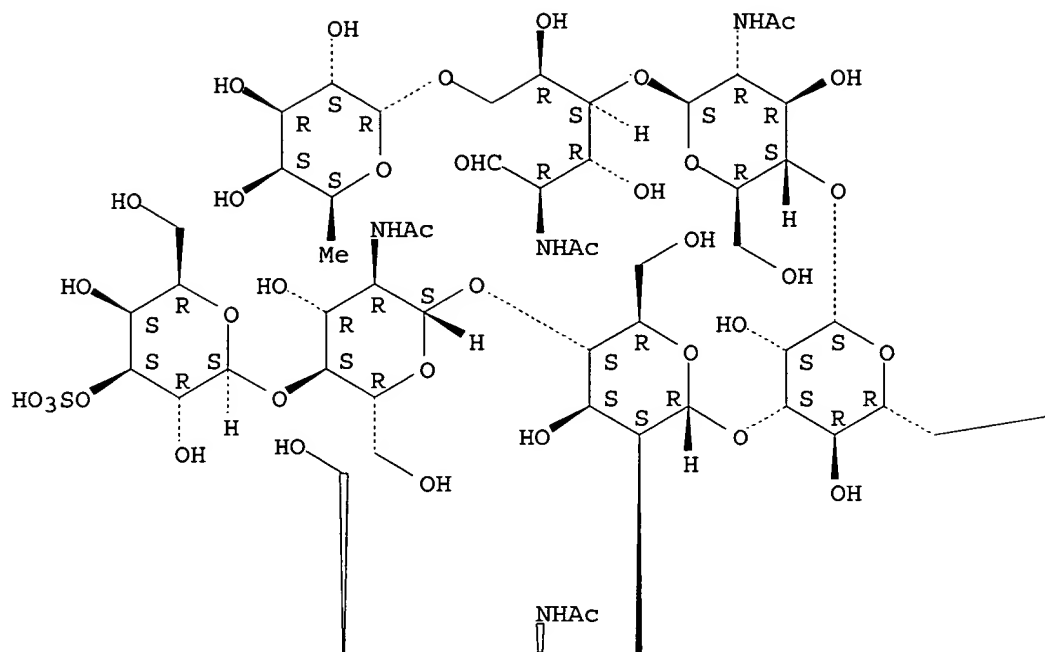


RN 214825-96-4 HCAPLUS

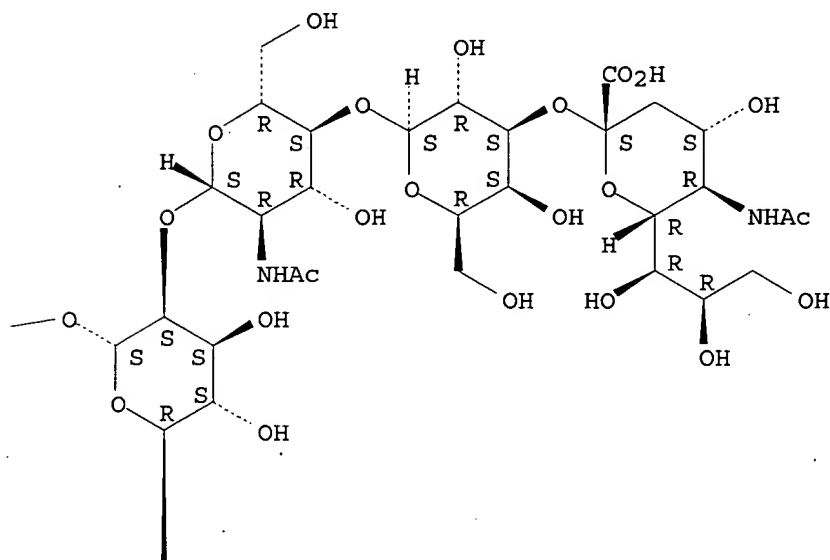
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

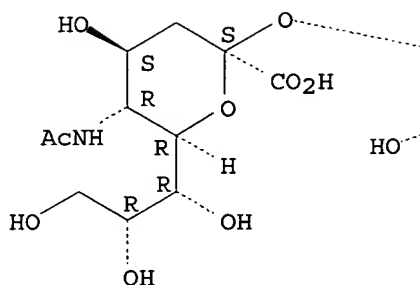
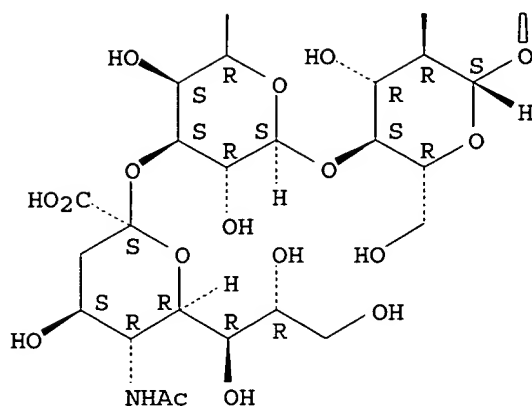
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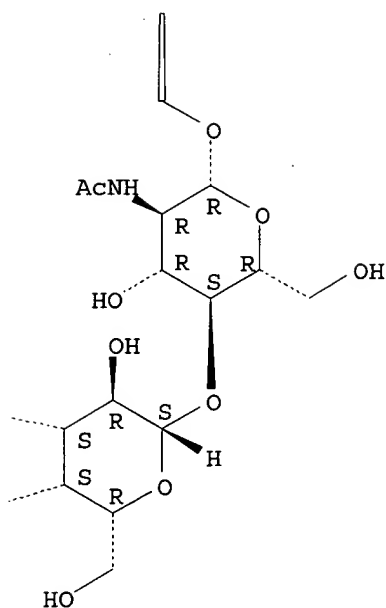
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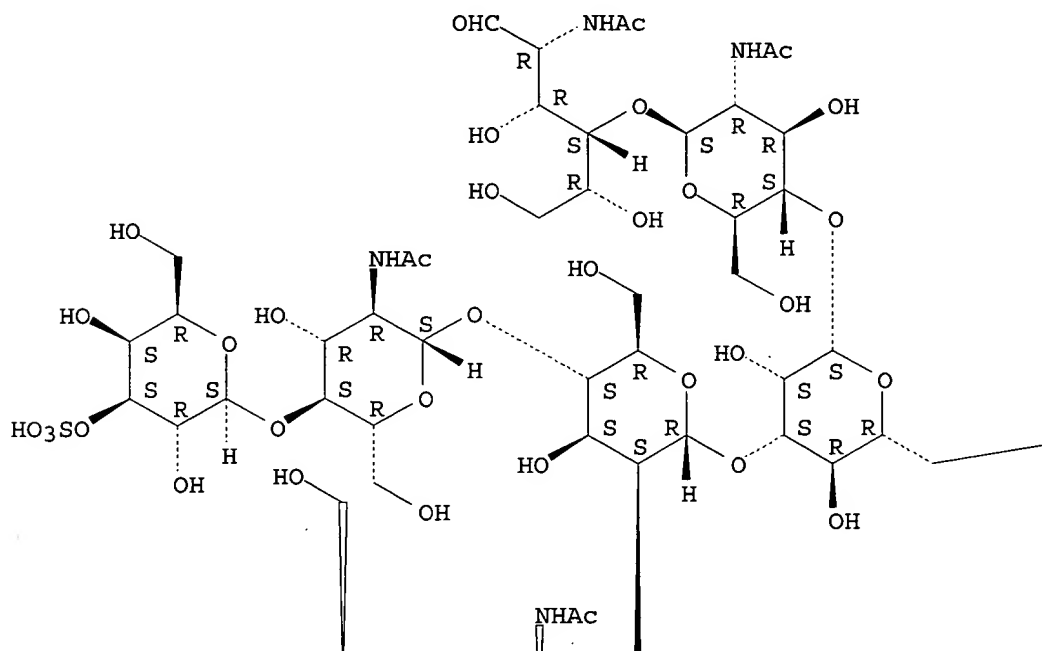
RN 214825-97-5 HCAPLUS

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-

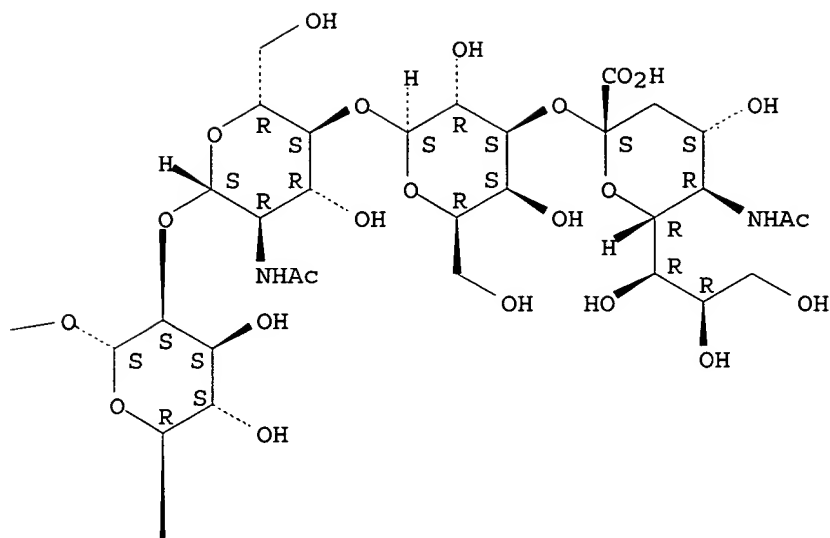
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Absolute stereochemistry.

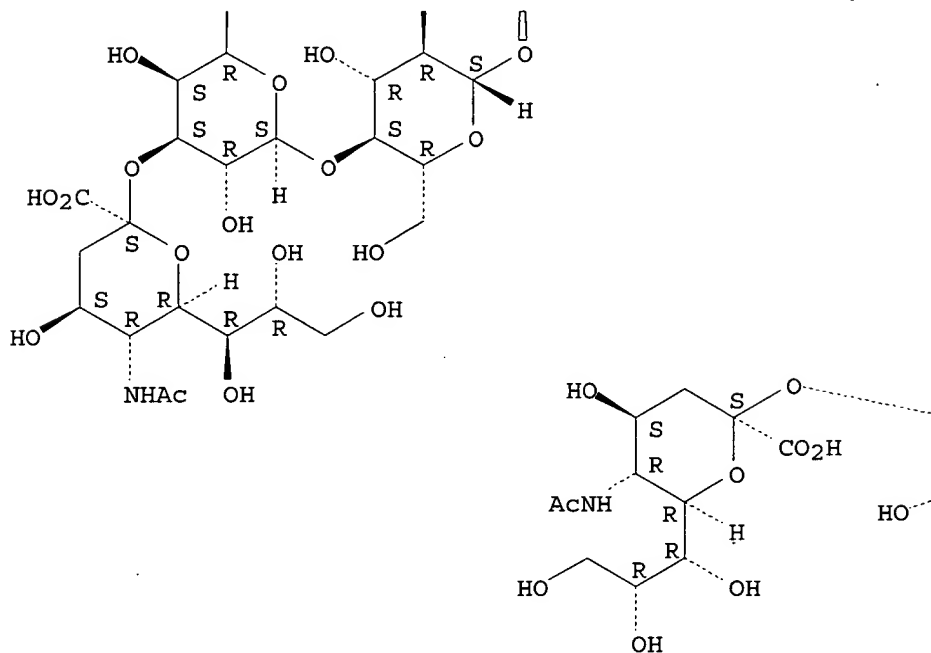
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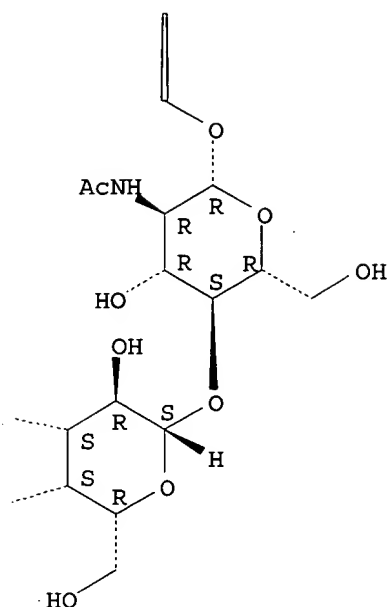
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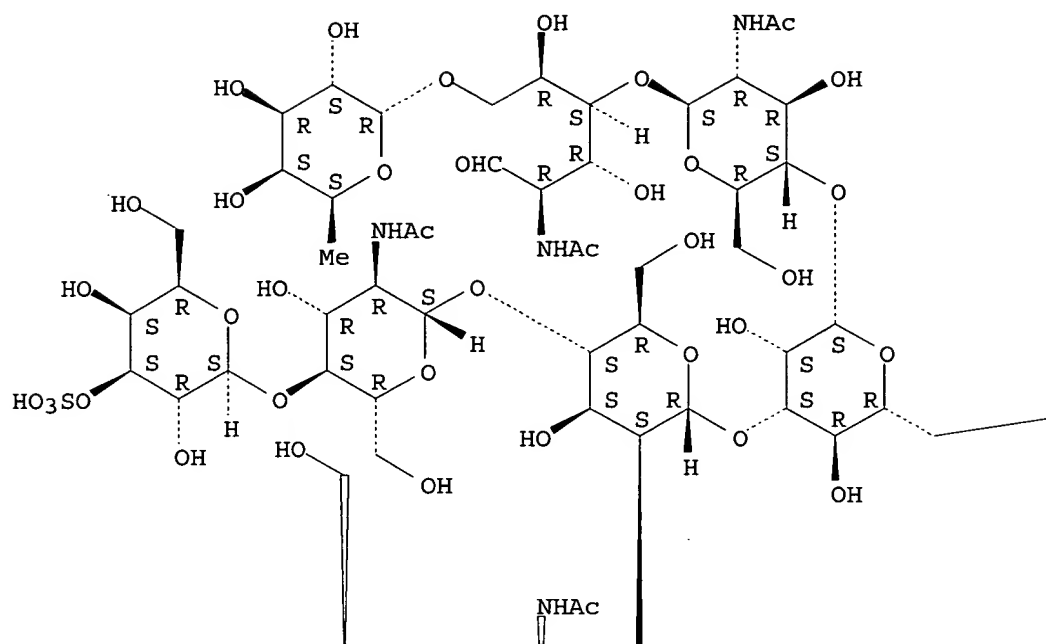


RN 214825-98-6 HCAPLUS

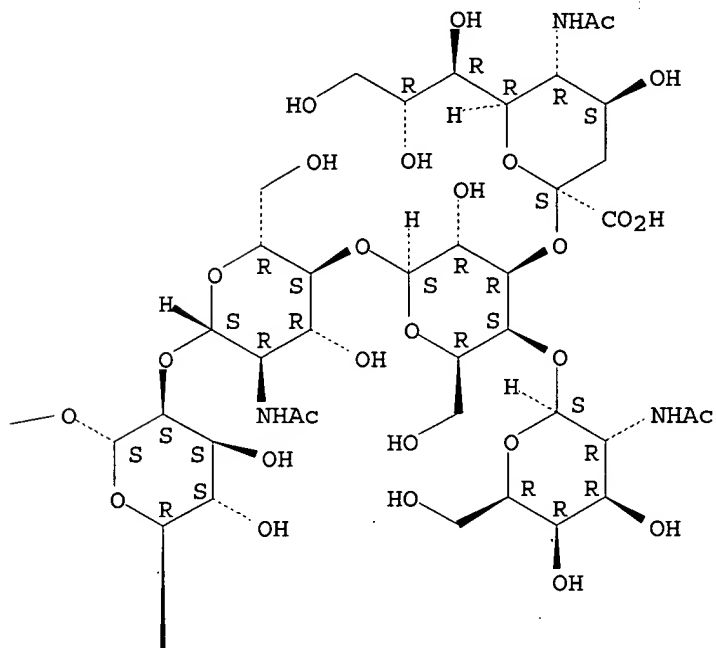
CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

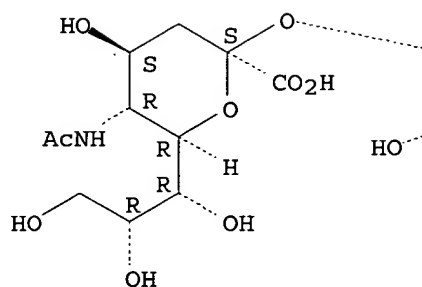
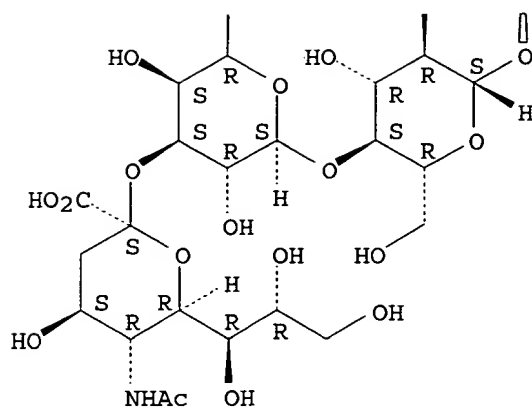
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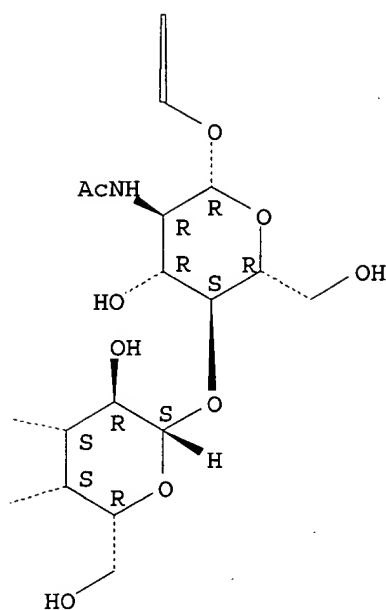
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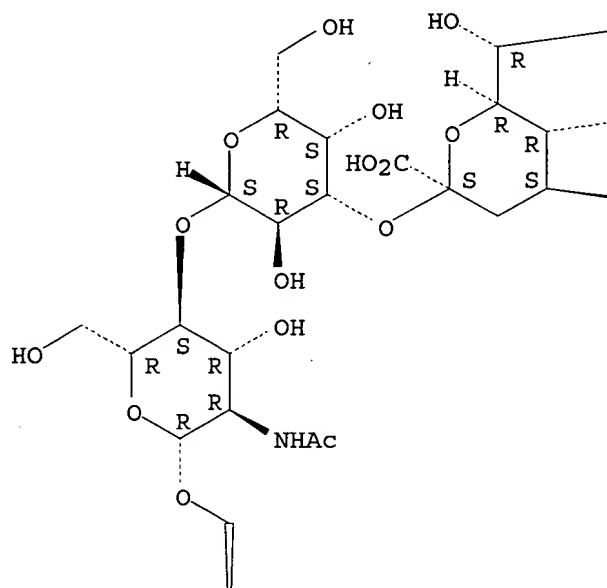
RN 214825-99-7 HCAPLUS

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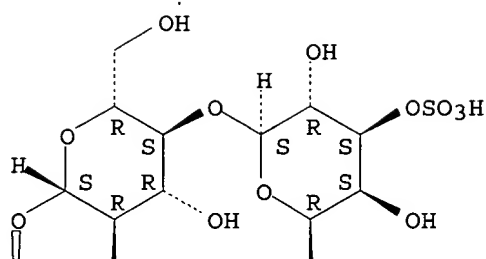
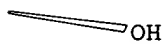
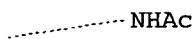
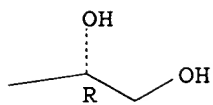
(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

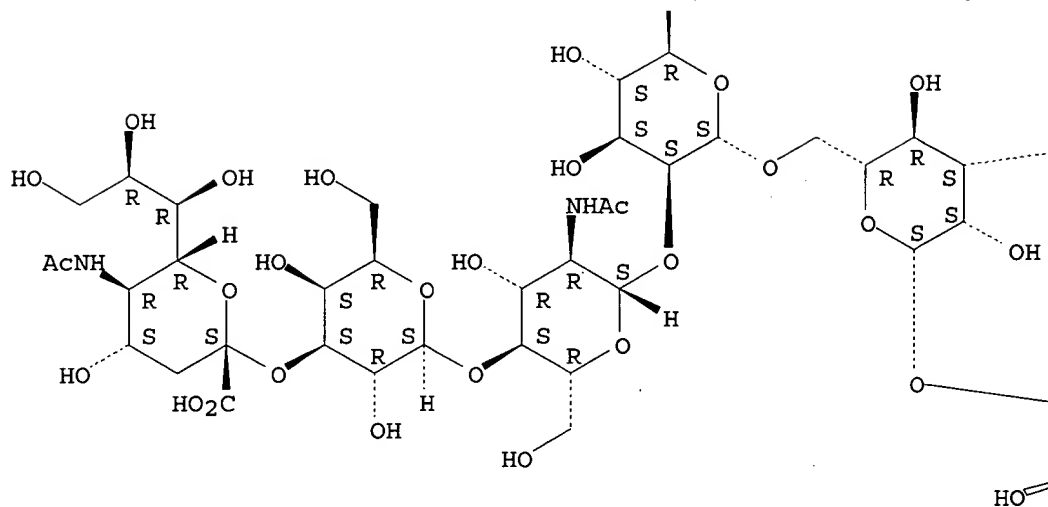
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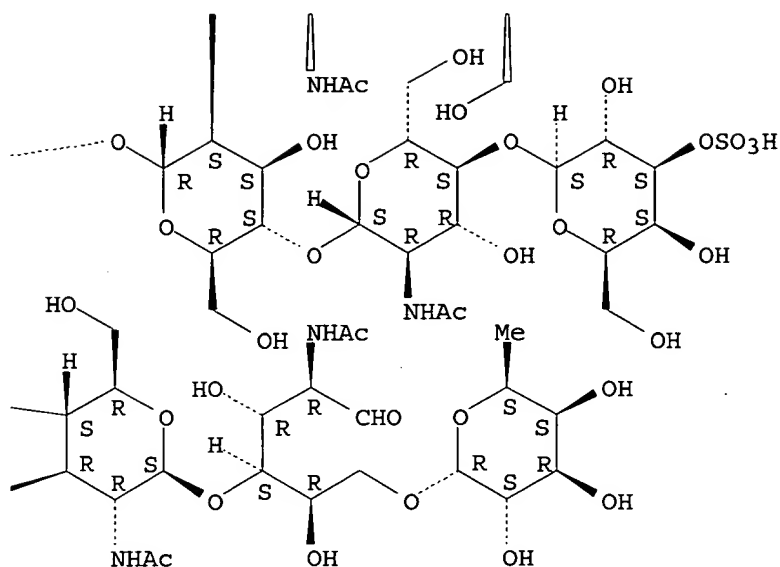
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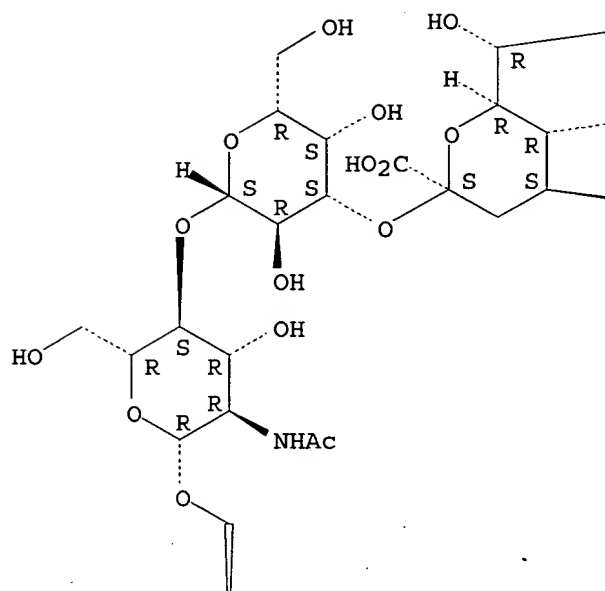


RN 214826-00-3 HCAPLUS

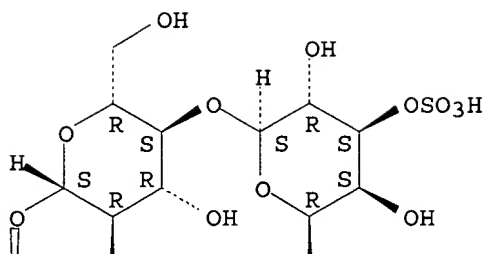
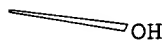
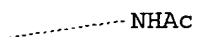
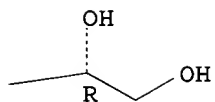
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

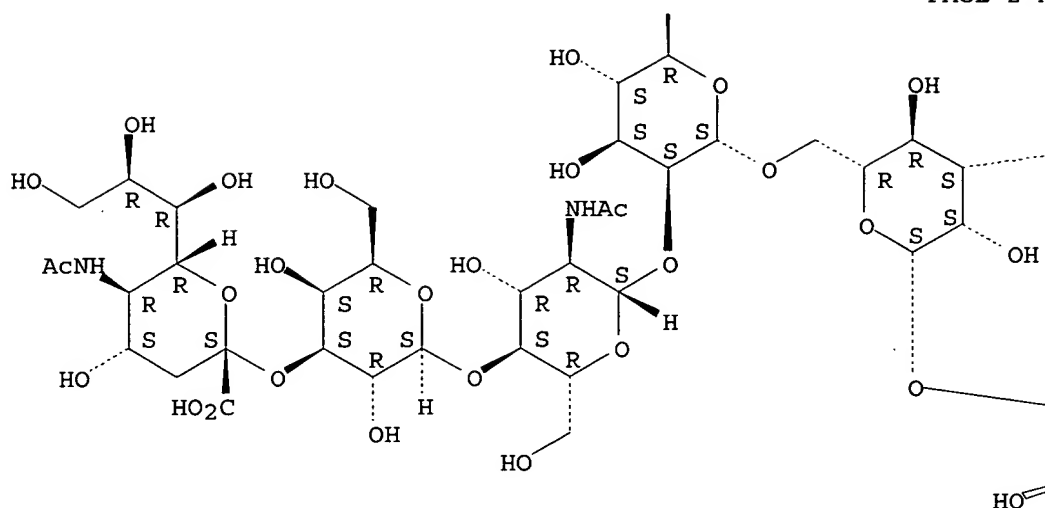
PAGE 1-A



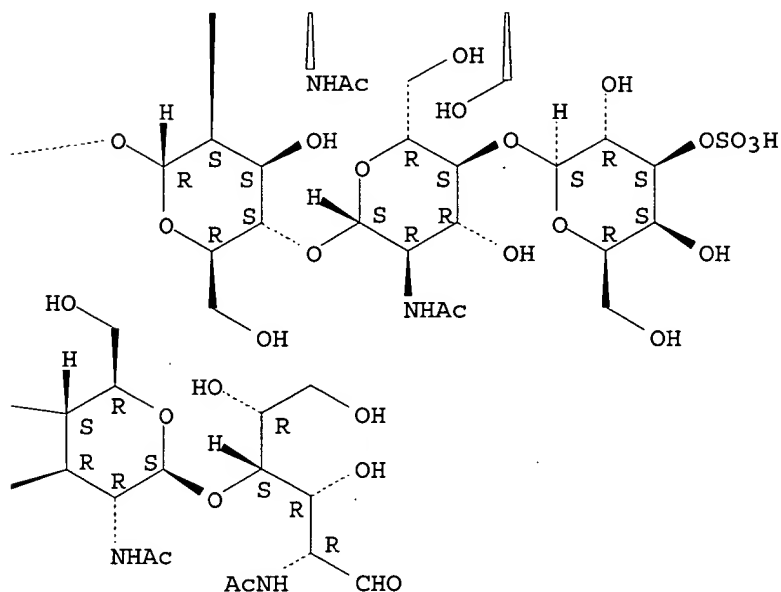
PAGE 1-B



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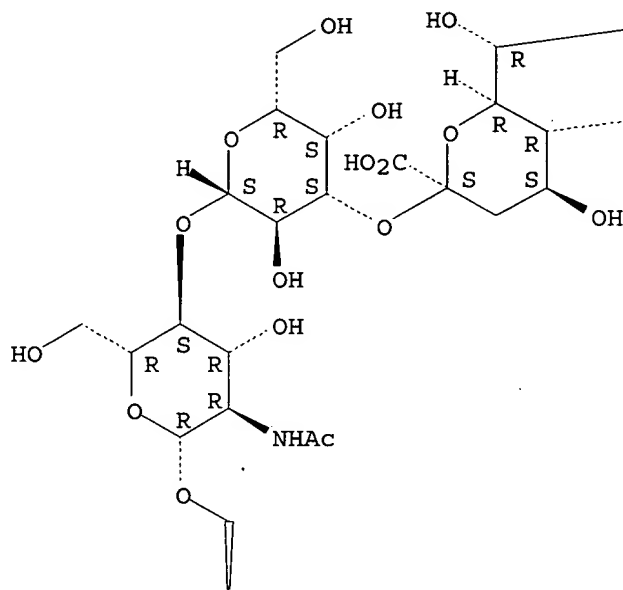
RN 214826-01-4 HCAPLUS

CN D-Glucose, O-2-(acetyl-amino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetyl-amino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetyl-amino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetyl-amino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetyl-amino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetyl-amino)-2-deoxy-.beta.-D-

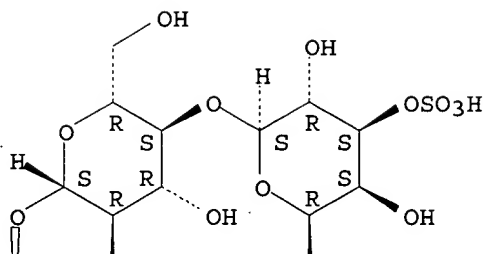
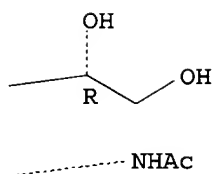
glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

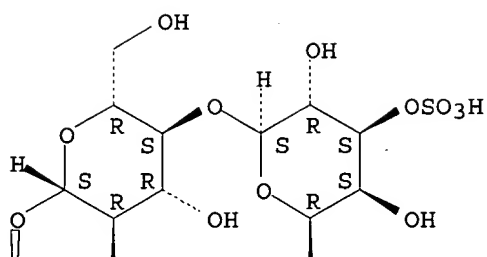
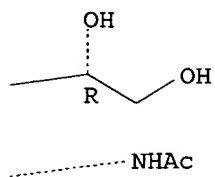
PAGE 1-A



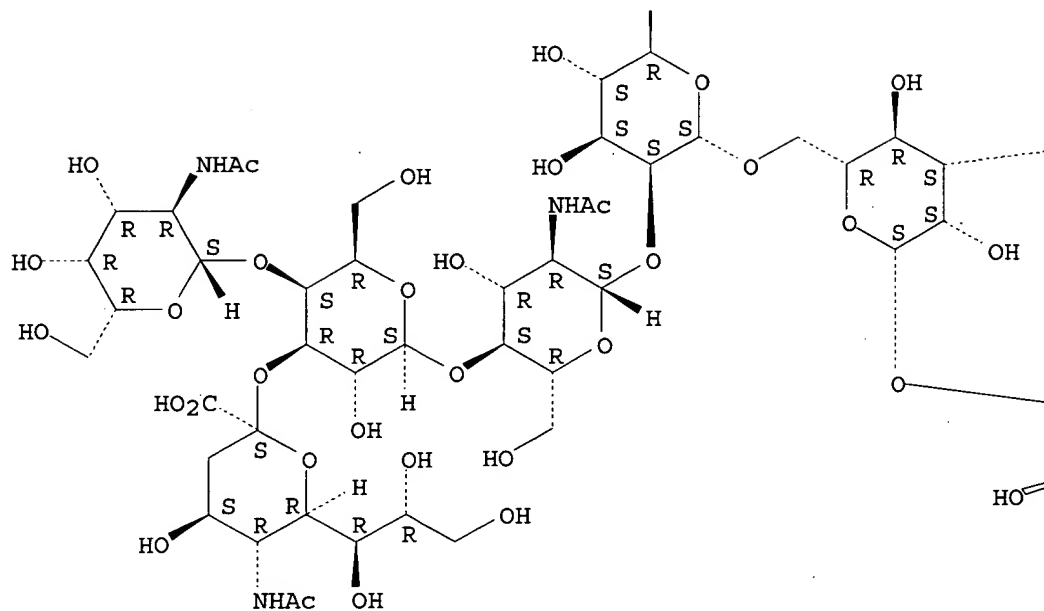
PAGE 1-B



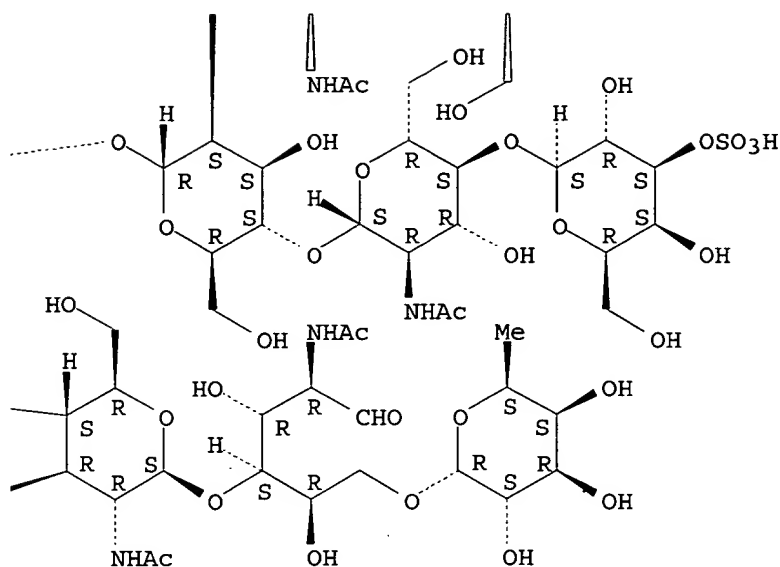
PAGE 1-B



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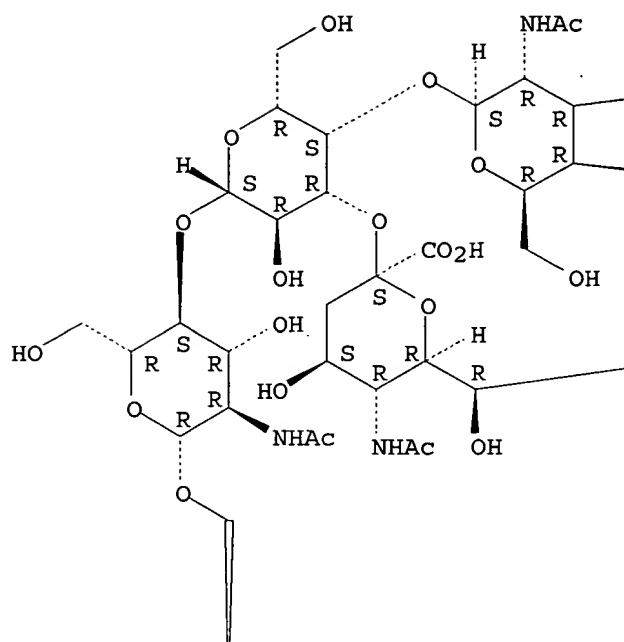


RN 214826-02-5 HCAPLUS

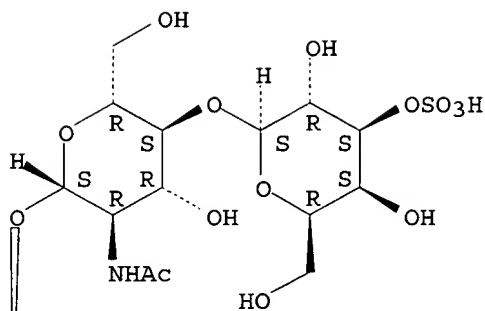
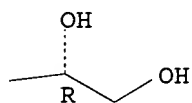
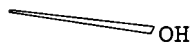
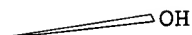
CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-2-(acetylamino)-2-deoxy-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

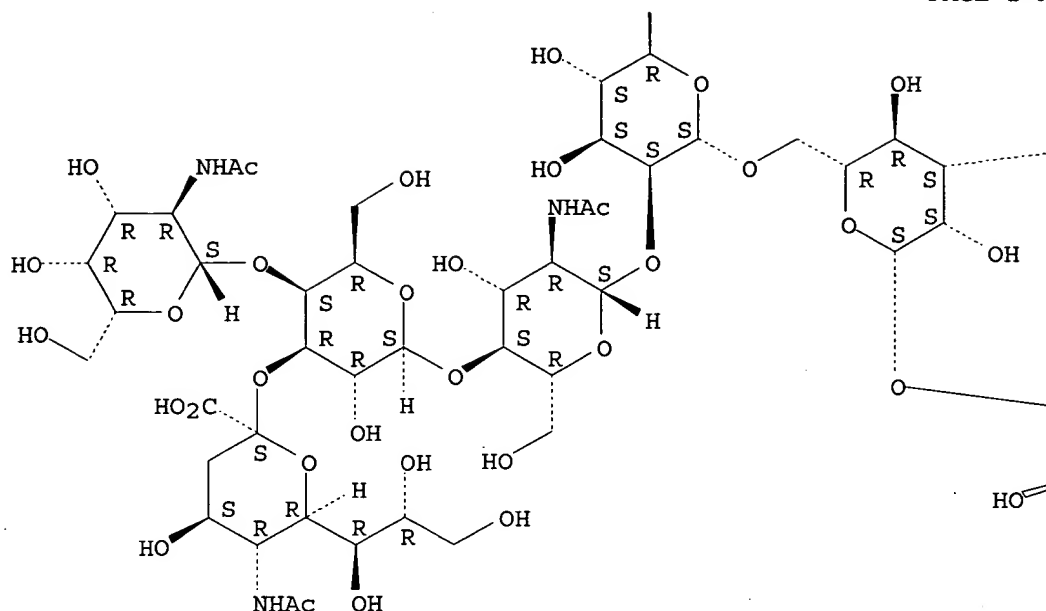
PAGE 1-A



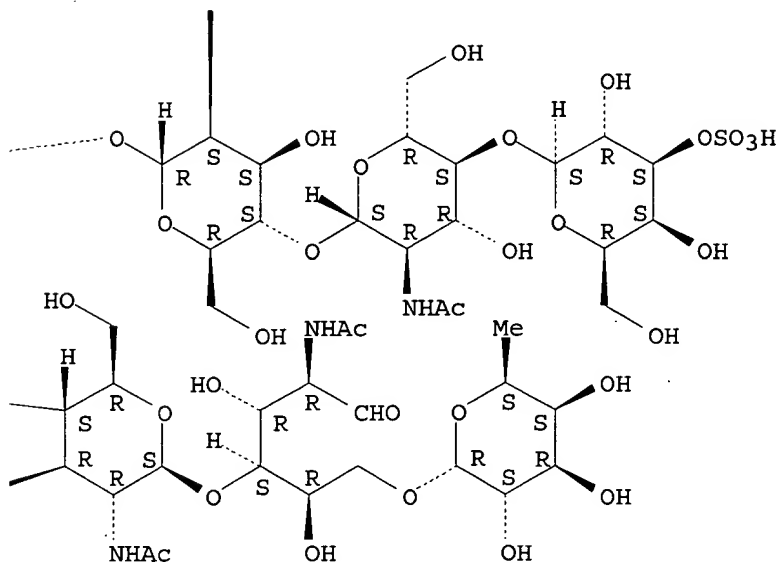
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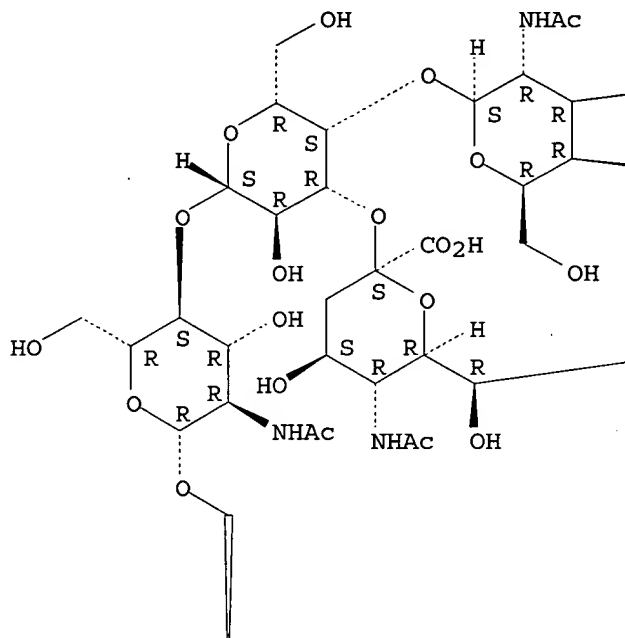
RN 214826-03-6 HCAPLUS

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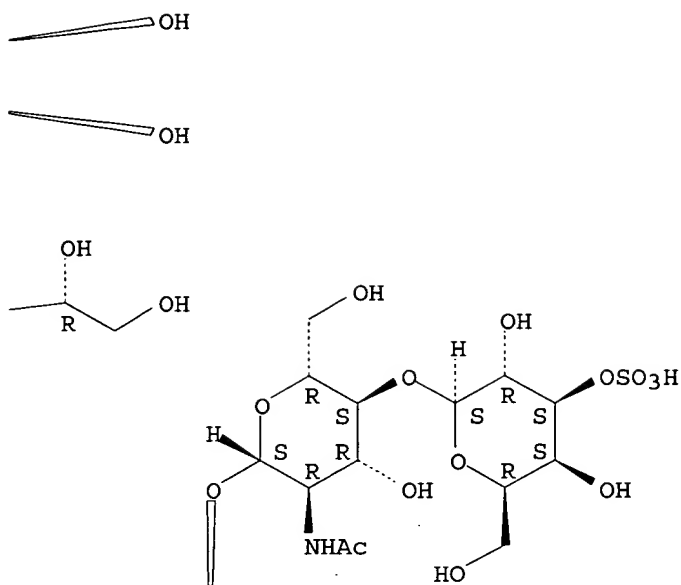
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Absolute stereochemistry.

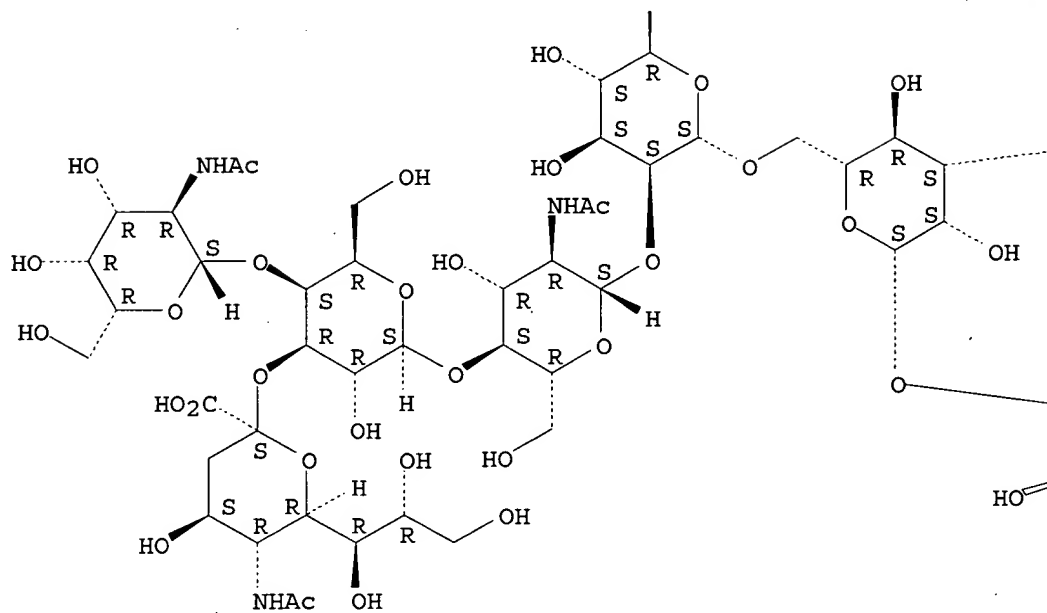
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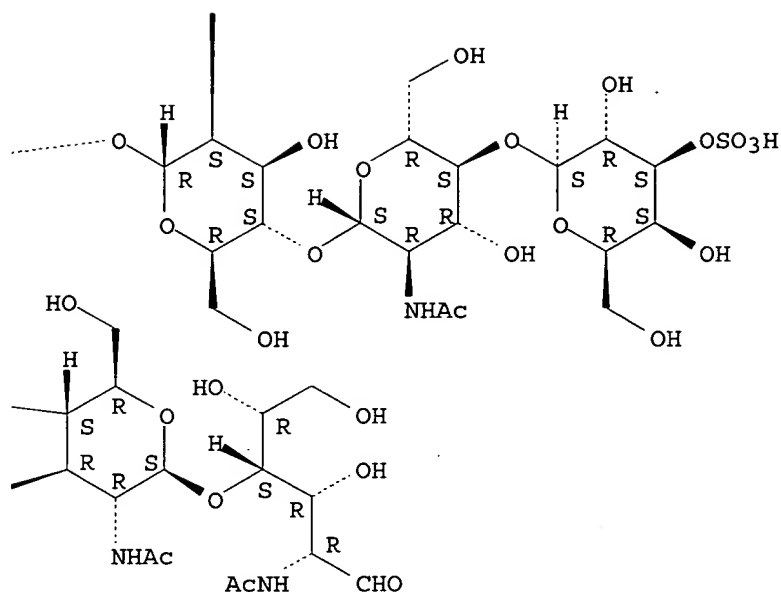
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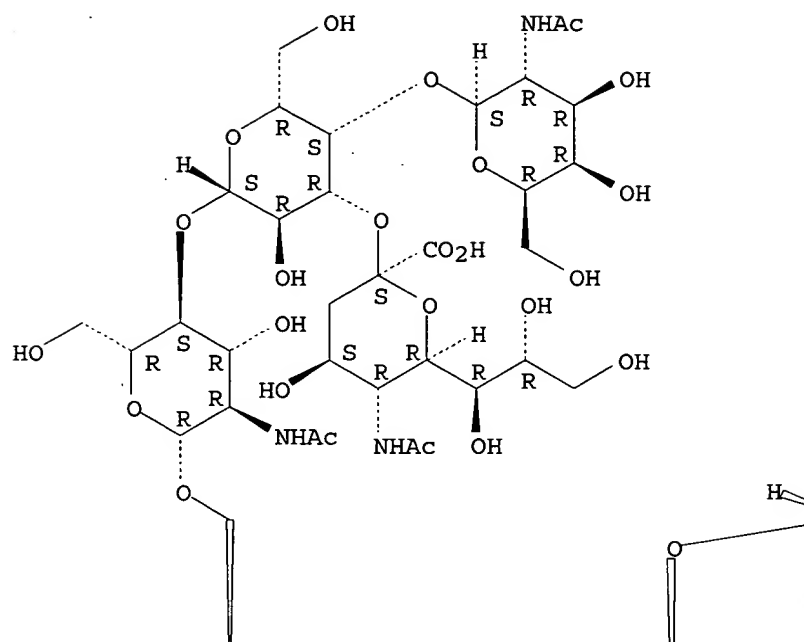


RN 214826-04-7 HCAPLUS

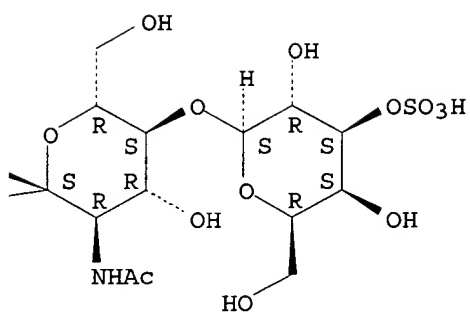
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Absolute stereochemistry.

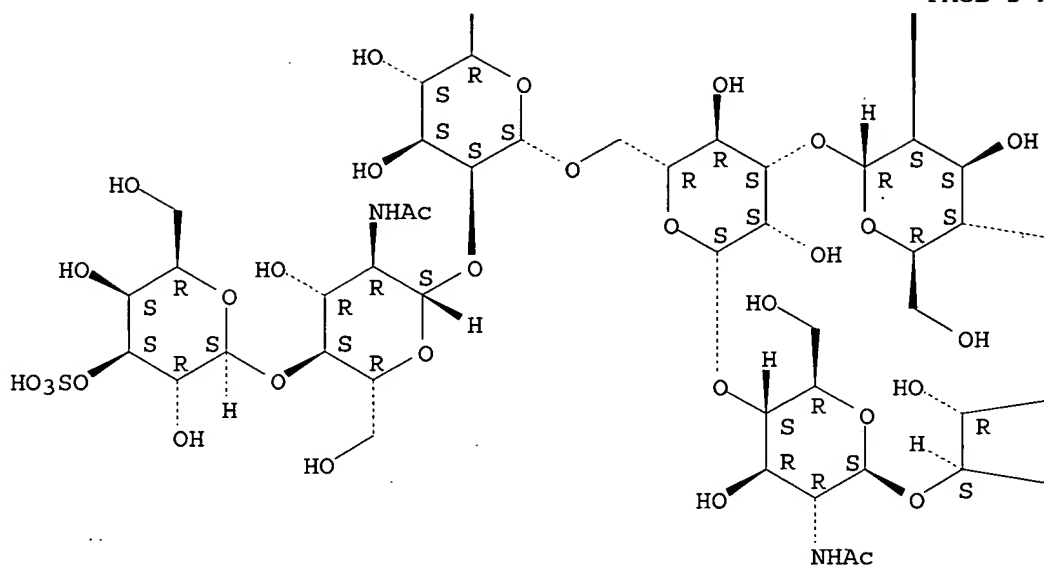
PAGE 1-A



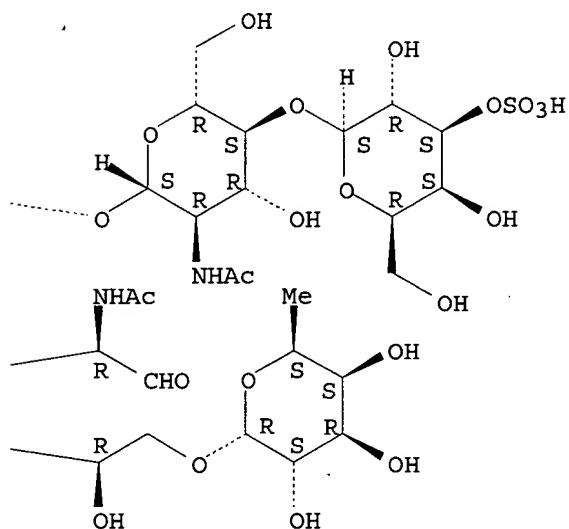
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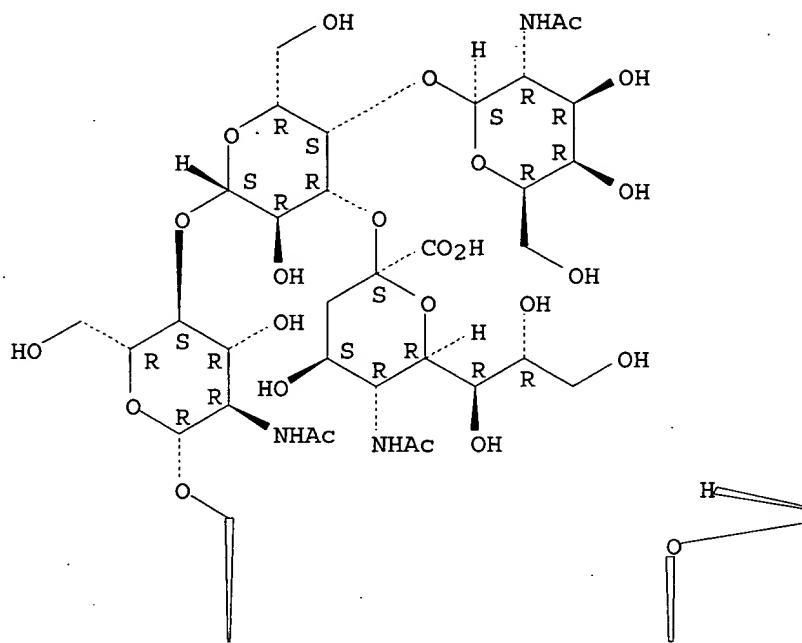
RN 214826-05-8 HCAPLUS

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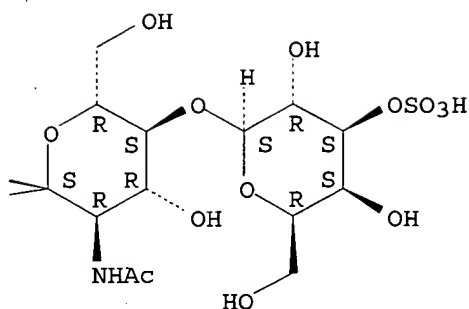
(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-
 (1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

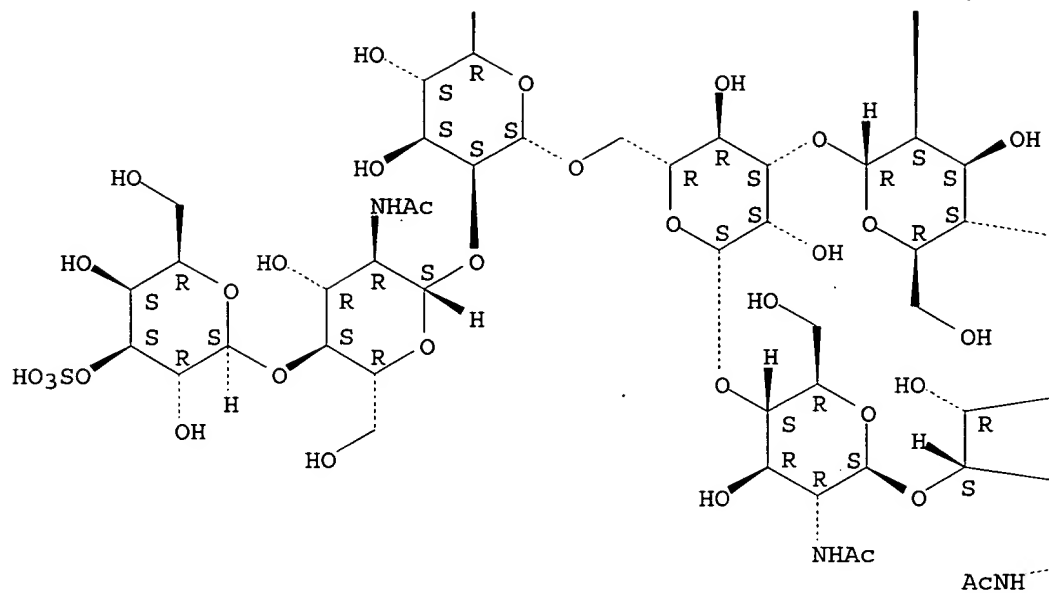
PAGE 1-A



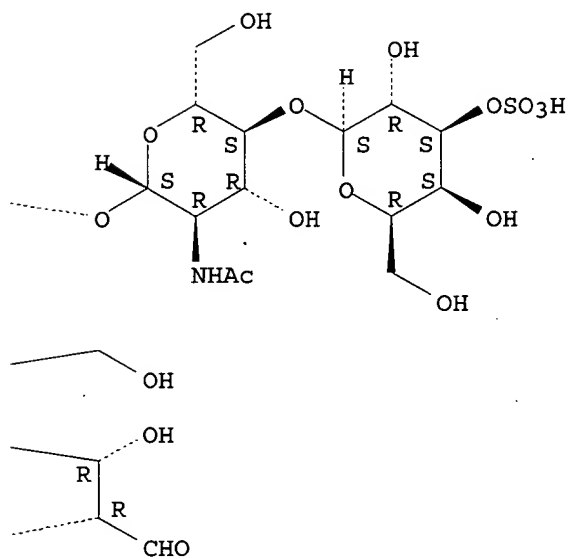
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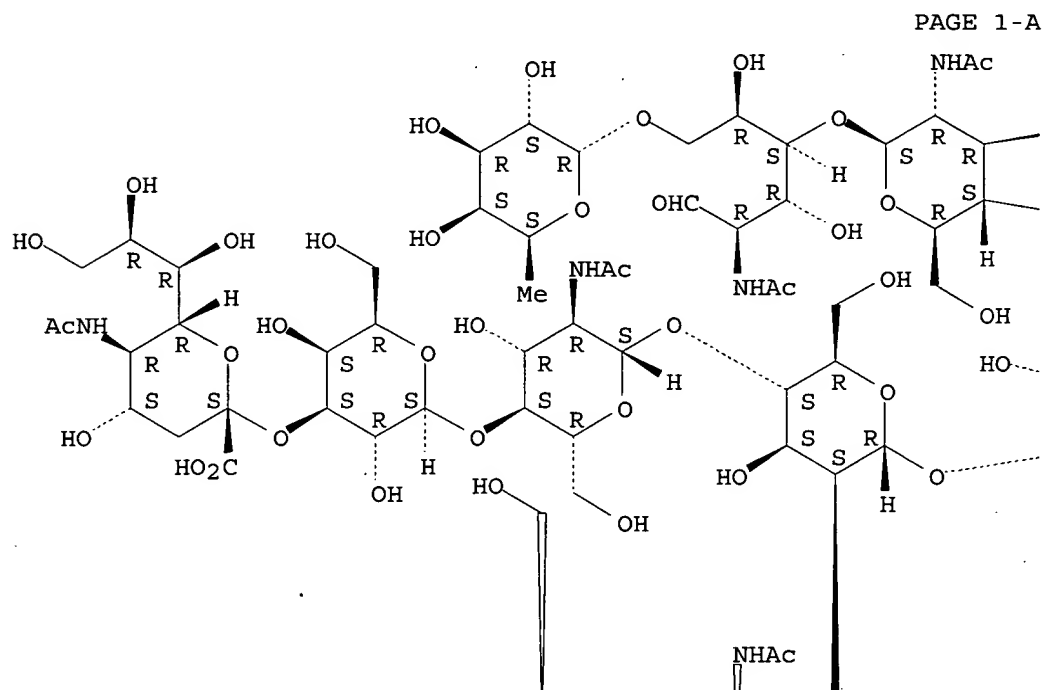


RN 214826-06-9 HCAPLUS

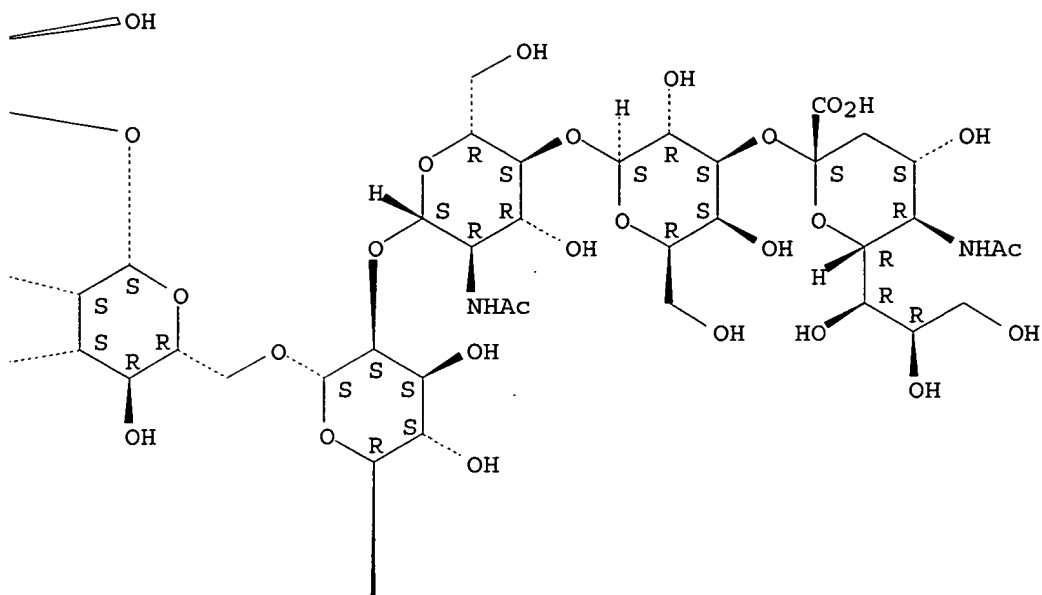
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galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

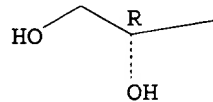
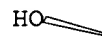
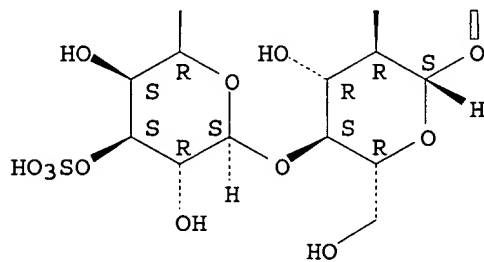
Absolute stereochemistry.



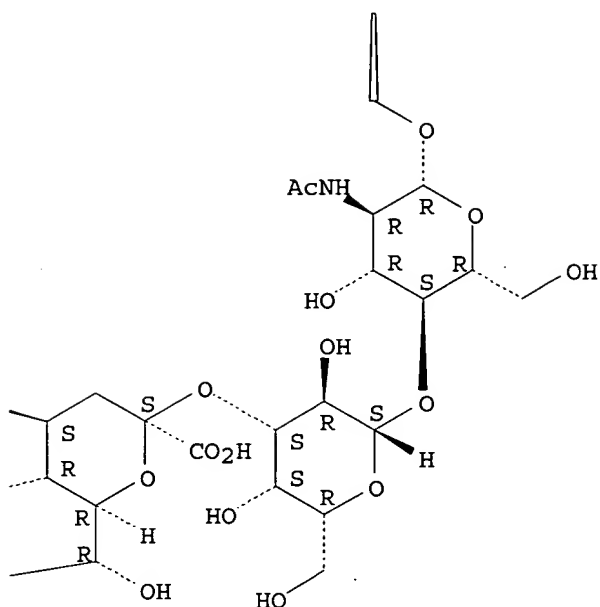
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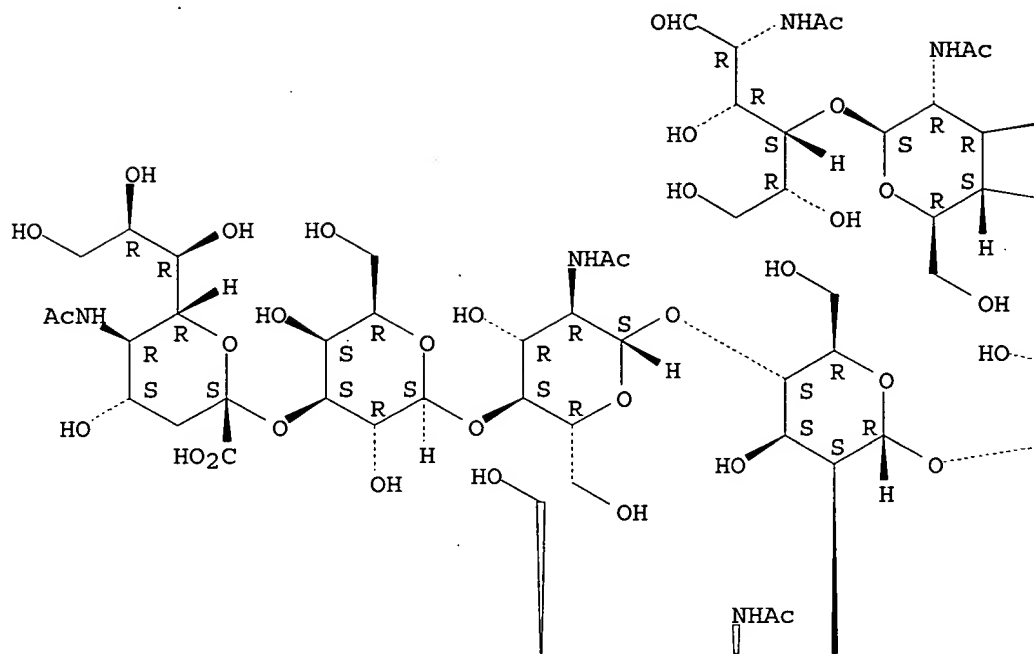


RN 214826-07-0 HCAPLUS

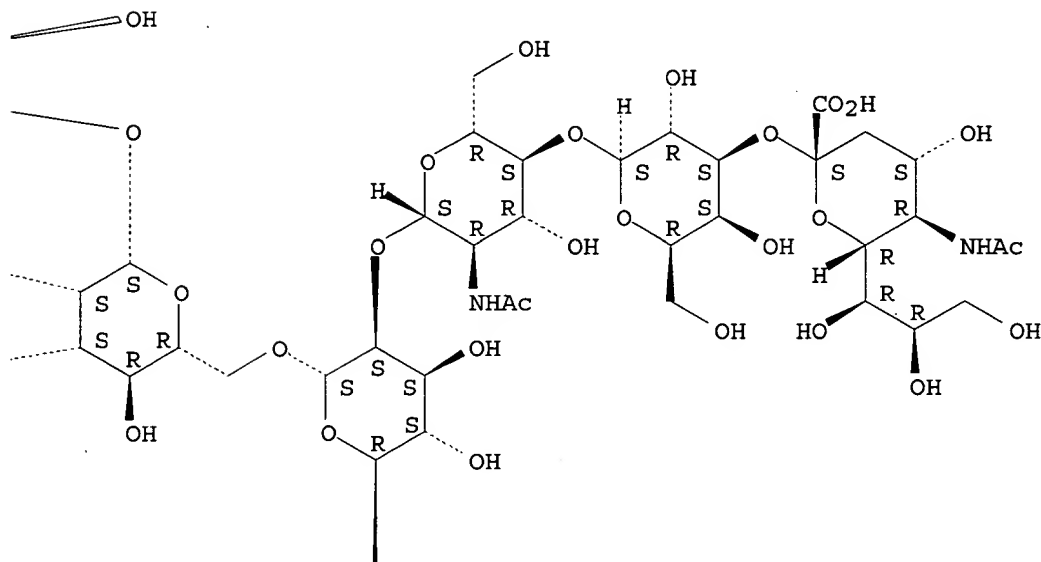
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Absolute stereochemistry.

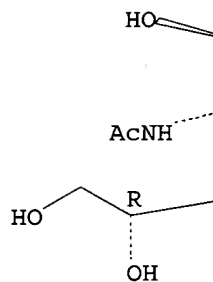
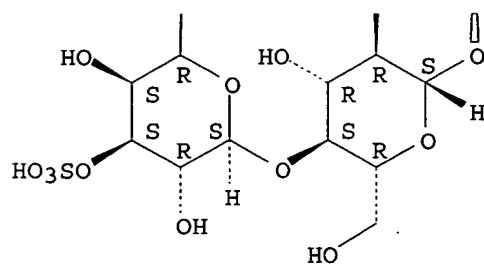
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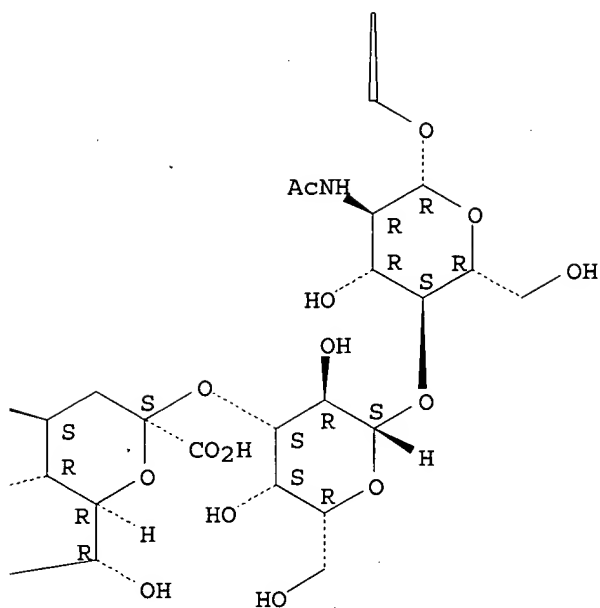
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REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:454691 HCAPLUS
DOCUMENT NUMBER: 129:203181

TITLE: Inhibition of L- and P-selectin by a rationally synthesized novel core 2-like branched structure containing GalNAc-Lewisx and Neu5Ac.alpha.2-3Gal.beta.1-3GalNAc sequences

AUTHOR(S): Jain, Rakesh K.; Piskorz, Conrad F.; Huang, Bao-Guo; Locke, Robert D.; Han, Hui-Ling; Koenig, Andrea; Varki, Ajit; Matta, Khushi L.

CORPORATE SOURCE: Department of Gynecologic Oncology, Roswell Park Cancer Institute, Buffalo, NY, 14263, USA

SOURCE: Glycobiology (1998), 8(7), 707-717
CODEN: GLYCE3; ISSN: 0959-6658

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We synthesized Gal.beta.1-4(Fuc.alpha.1-3)GlcNAc.beta.1-6(Neu5Ac.alpha.2-3Gal.beta.1-3)-GalNAc.alpha.-OB, which was found to be 2- to 3-fold better than sialyl Lex for P and L selectin, resp. We also report the synthesis of an unusual structure GalNAc.beta.1-4(Fuc.alpha.1-3)GlcNAc.beta.1-OMe (GalNAc-Lewisx-O-Me glycoside), which also provided to be a better inhibitor of L- and P-selectin than sialyl Lewisx-OMe. Combining this with our knowledge of Core 2 branched structures, we have synthesized a mol. that is 5- to 6-fold better at inhibiting L- and P-selectin than sialyl Lewisx-OMe. By contrast to unbranched structures, substitution of a sulfate ester group for a sialic acid residue in such a mol. resulted in a considerable loss of inhibition ability. Thus, the combination of a sialic acid residue on the primary (.beta.1-3) arm, and a modified Lex unit on the branched (.beta.1-6) arm on an O-linked Core 2 structure generated a monovalent synthetic oligosaccharide inhibitor superior to SLex for both L- and P-selectin.

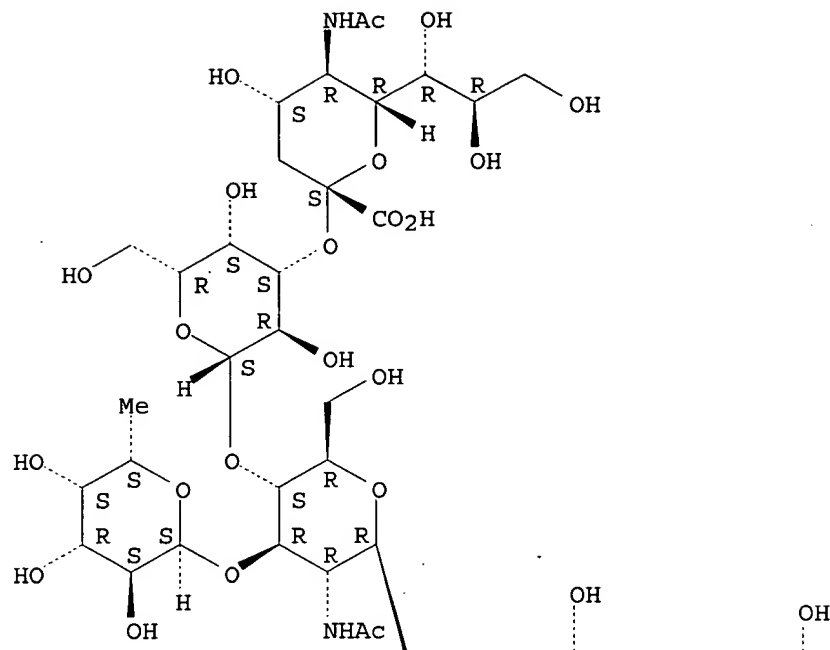
IT 212061-10-4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(prepn. of branched sialylated GalNAc-contg. oligosaccharides as selectin inhibitors)

RN 212061-10-4 HCAPLUS

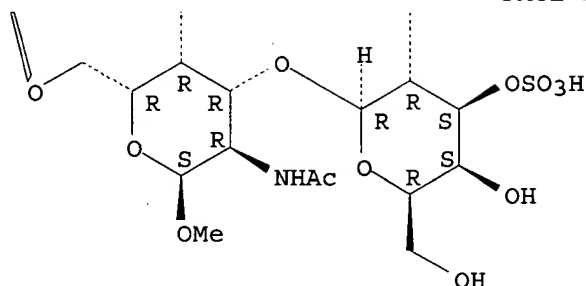
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Absolute stereochemistry. Rotation (+).

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REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 1995:479978 HCAPLUS

DOCUMENT NUMBER: 123:309441

TITLE: The major N-linked carbohydrate chains from human urokinase. The occurrence of 4-Q-sulfated, (.alpha.2-6)-sialylated or (.alpha.1-3)-fucosylated N-acetylgalactosamine(.beta.1-4)-N-acetylglucosamine elements

AUTHOR(S): Bergwerff, Aldert A.; Van Oostrum, Jan; Kamerling, Johannis P.; Vliegthart, Johannes F. G.

CORPORATE SOURCE: Department Bio-Organic Chemistry, Utrecht University, Neth.

SOURCE: European Journal of Biochemistry (1995), 228(3),

1009-19

CODEN: EJBCAI; ISSN: 0014-2956

PUBLISHER:

Springer

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB The primary structure of the major N-linked carbohydrate chains attached to Asn-302 of urinary-type plasminogen activator (urokinase) was detd. Urokinase was completely deglycosylated with peptide-N4-(N-acetyl-.beta.-glucosaminyI)asparagine amidase F from *Flavobacterium meningosepticum*. The released oligosaccharides were sepd. from the remaining protein using gel-permeation chromatog. on Bio-Gel P-100, and then on Bio-Gel P-6. Fractionation of the oligosaccharides was achieved by a combination of FPLC anion-exchange chromatog. on Mono Q HR 5/5, and amine-adsorption HPLC on LiChrospher 100-NH2. Anal. by 1H NMR spectroscopy demonstrated that the collection of N-glycans comprised di-, tri-, and tri'-antennary structures. The glycans contained predominantly GalNAc.beta.1-4GlcNAc.beta. instead of Gal.beta.1-4GlcNAc.beta. elements. The GalNAc residue was mainly sulfated at O4, or to a lesser extent it bore N-acetylneuraminic acid at O6; alternatively the GlcNAc residue could be fucosylated at O3. The major component, which accounted for >30 mol/100 mol of the total oligosaccharide pool, consisted of an (.alpha.1-6)-fucosylated diantennary N-linked carbohydrate chain with (SO4-)-4GalNAc.beta.1-4GlcNAc.beta.1-2 antennae.

IT 130847-64-2 169566-86-3

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

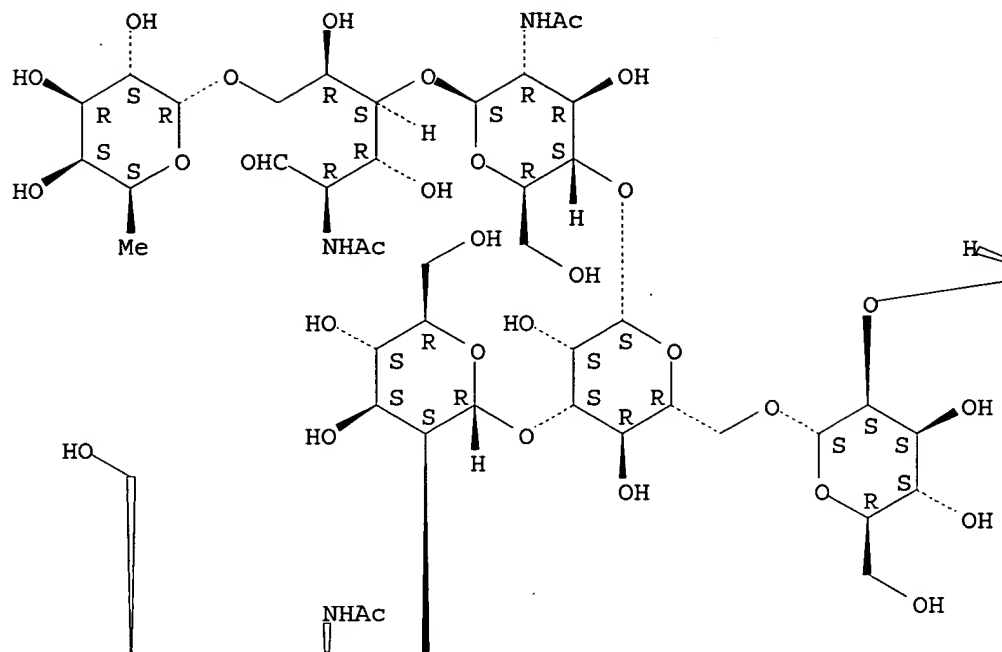
(structure of major N-linked oligosaccharides from human urokinase)

RN 130847-64-2 HCAPLUS

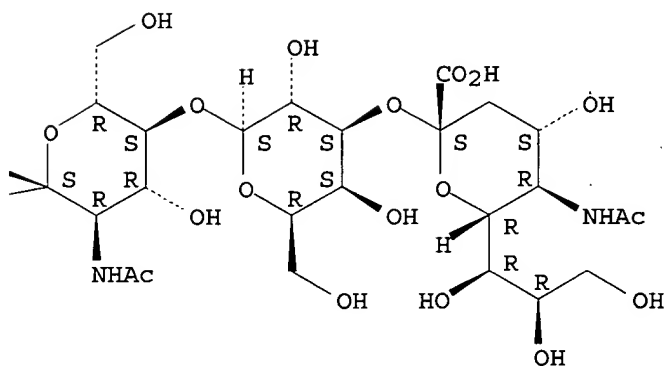
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Absolute stereochemistry.

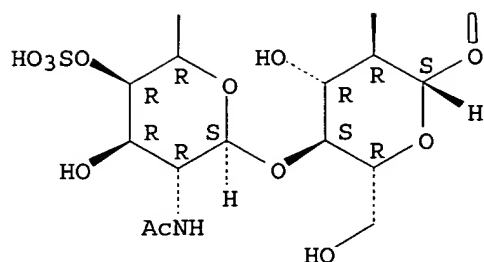
PAGE 1-A



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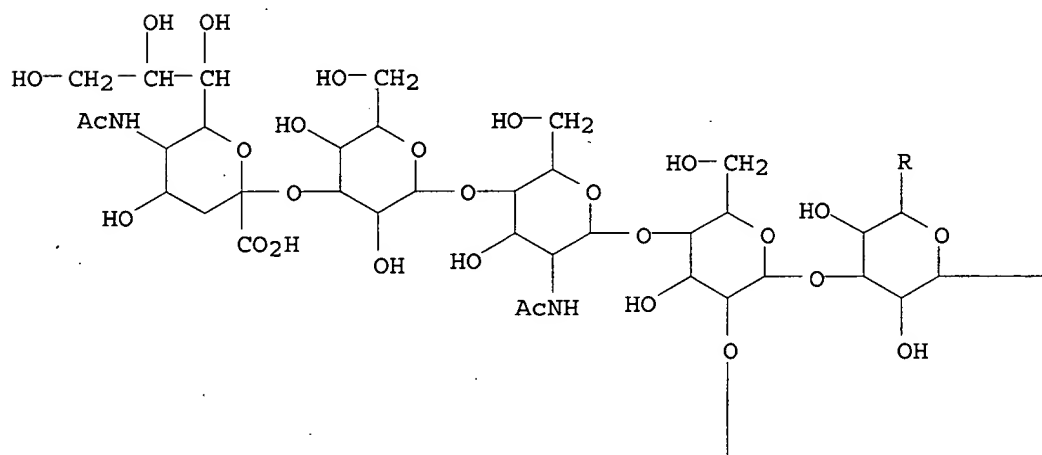
PAGE 2-A



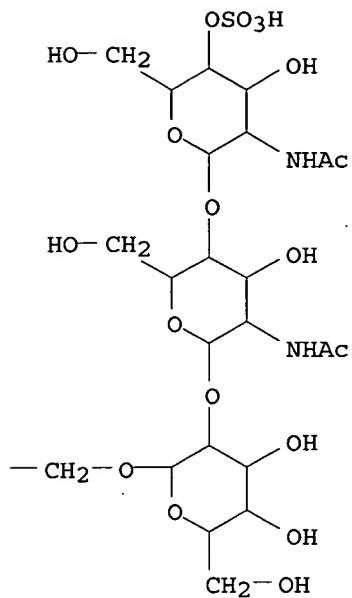
RN 169566-86-3 HCAPLUS

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(CA INDEX NAME)

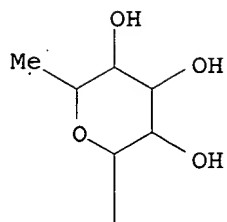
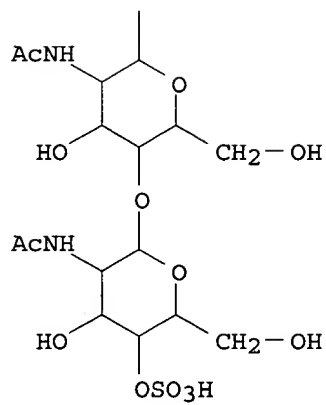
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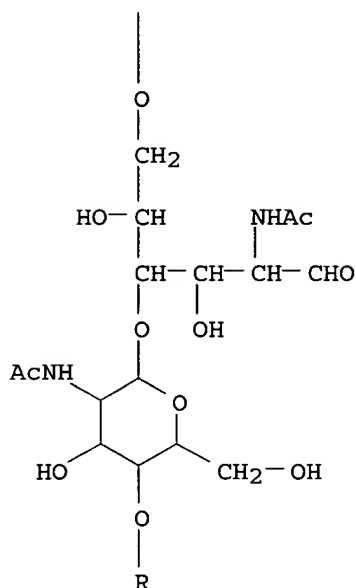
PAGE 1-B



PAGE 2-A



PAGE 3-A



L15 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:207858 HCAPLUS

DOCUMENT NUMBER: 118:207858

TITLE: The Asn-linked carbohydrate chains of human Tamm-Horsfall glycoprotein of one male. Novel sulfated and novel N-acetylgalactosamine-containing N-linked carbohydrate chains

AUTHOR(S): Hard, Karl; Van Zadelhoff, Guus; Moonen, Peter; Kamerling, Johannes P.; Vliegenthart, Johannes F. G.
 CORPORATE SOURCE: Dijvoet Cent., Utrecht Univ., Utrecht, 3508 TB, Neth.
 SOURCE: European Journal of Biochemistry (1992), 209(3), 895-915

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Human Tamm-Horsfall glycoprotein has been purified from the urine of one male. The Asn-linked carbohydrate chains were enzymically released by peptide-N4-(N-acetyl-.beta.-glucosaminyl)asparagine amidase F, and sepd. from the remaining protein by gel-permeation chromatog. on Bio-Gel P-100. Fractionation of the intact (sulfated) sialylated carbohydrate chains was achieved by a combination of three liq.-chromatog. techniques, namely, anion-exchange FPLC on Q-Sepharose, amine-adsorption HPLC on Lichrospher-NH2, and high-pH anion-exchange chromatog. on CarboPac PA1. In total, more than 150 carbohydrate-contg. fractions were obtained, some of which still contained mixts. of oligosaccharides. The primary structure of 30 N-glycans, including 10 novel oligosaccharides, were detd. by one- and two-dimensional 1H NMR spectroscopy at 500 MHz or 600 MHz. The types of compds. identified range from nonfucosylated, monosialylated, diantennary to fucosylated, tetrasialylated, tetraantennary carbohydrate chains.

IT 130847-64-2 145288-68-2 145288-69-3
 145311-38-2 147998-52-5

RL: BIOL (Biological study)

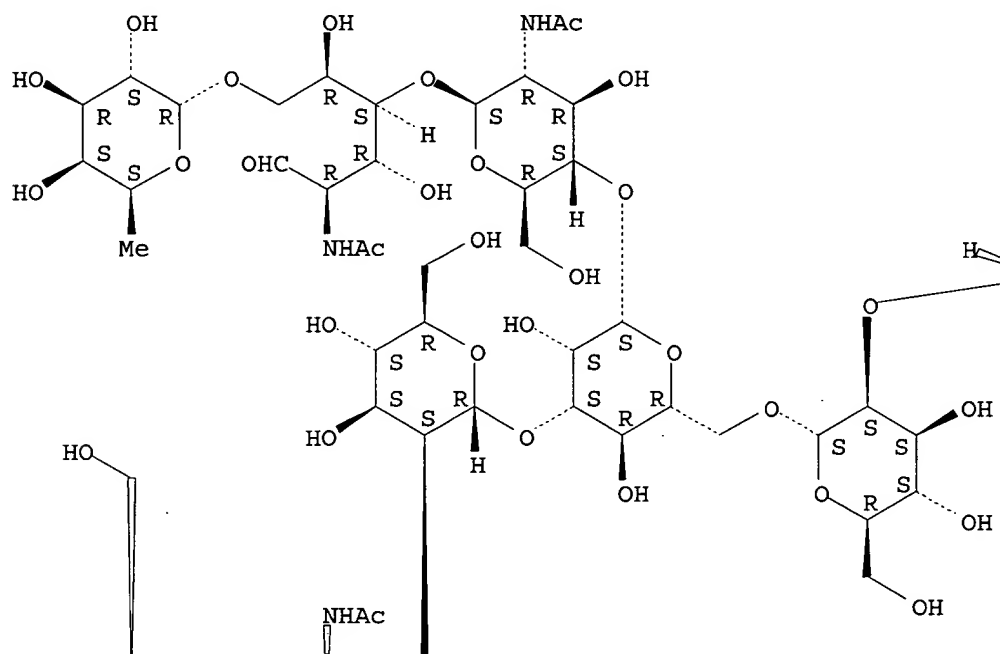
(of Tamm-Horsfall sialoglycoprotein, of human urine, structure of)

RN 130847-64-2 HCAPLUS

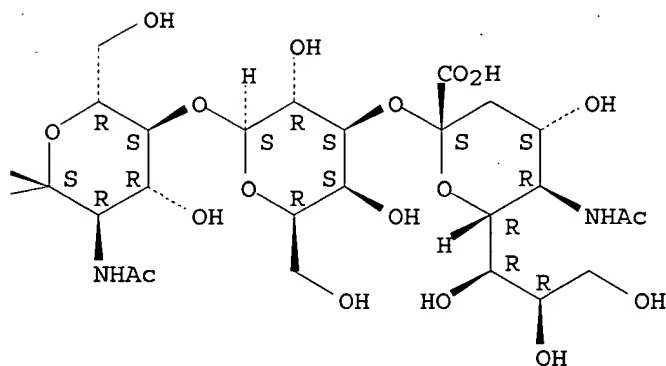
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Absolute stereochemistry.

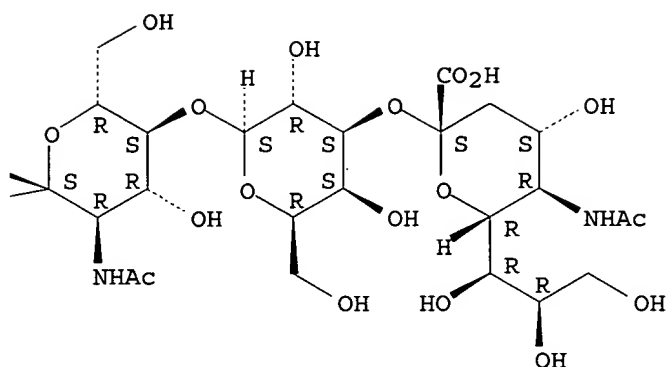
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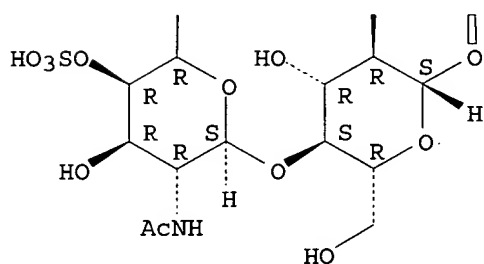
PAGE 1-B



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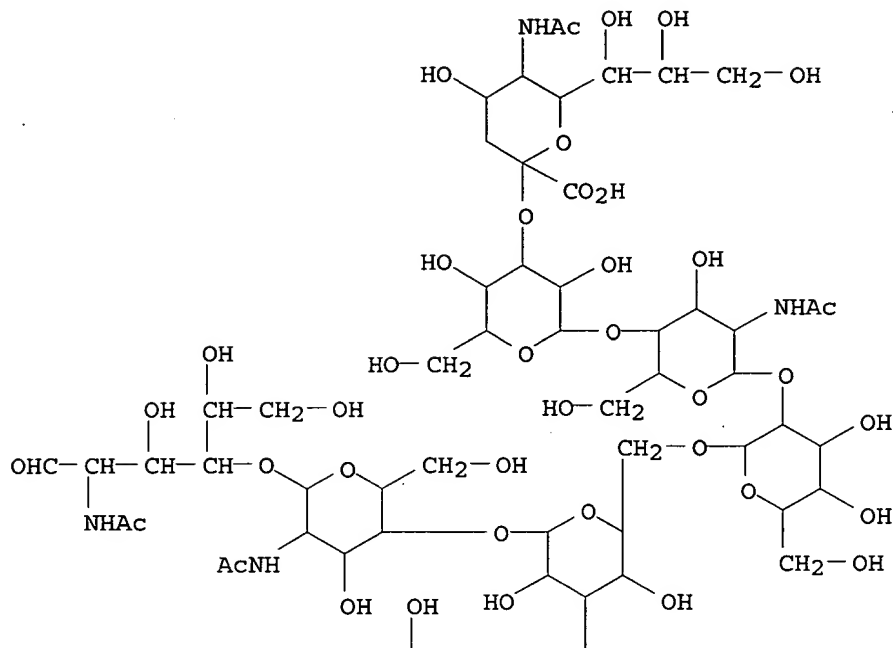
PAGE 2-A



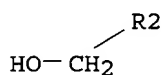
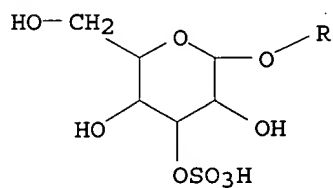
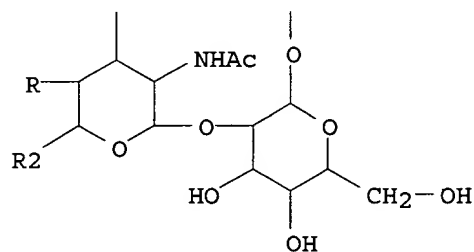
RN 145288-68-2 HCAPLUS

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(CA INDEX NAME)

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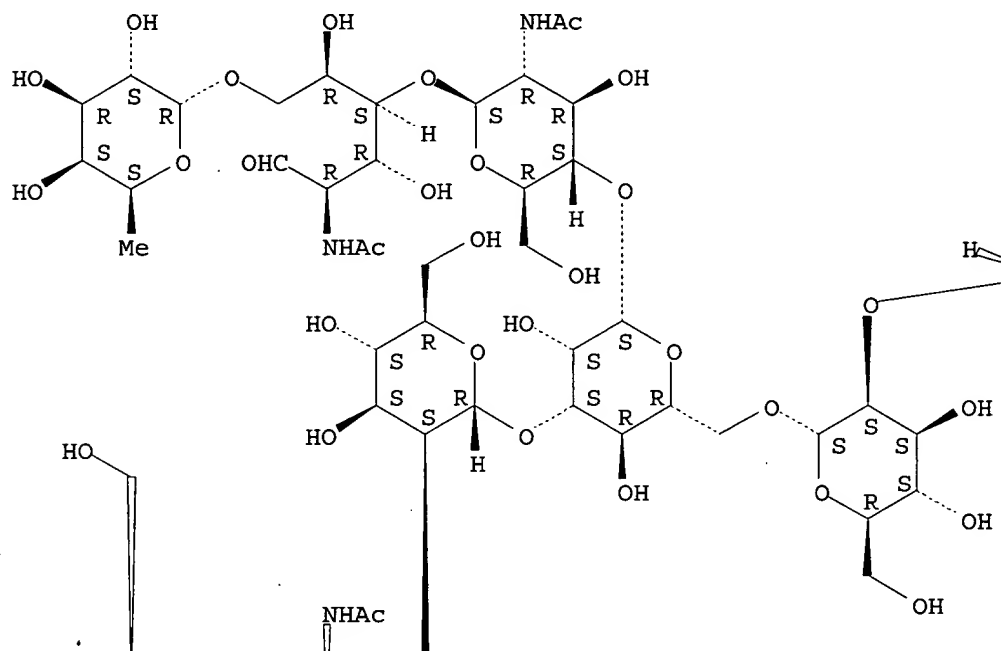


RN 145288-69-3 HCAPLUS
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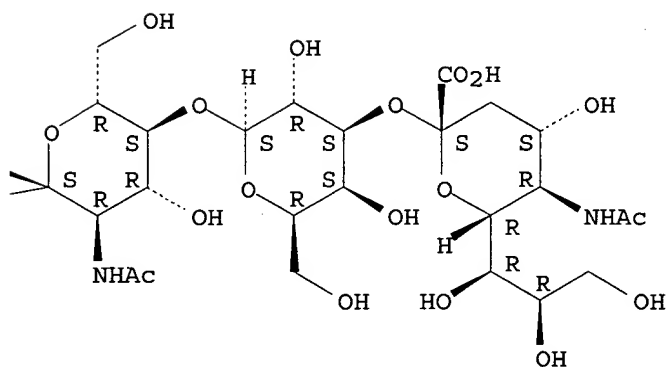
glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

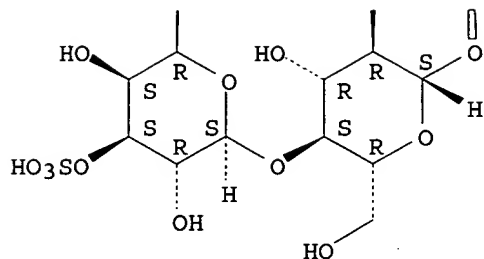
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PAGE 1-B



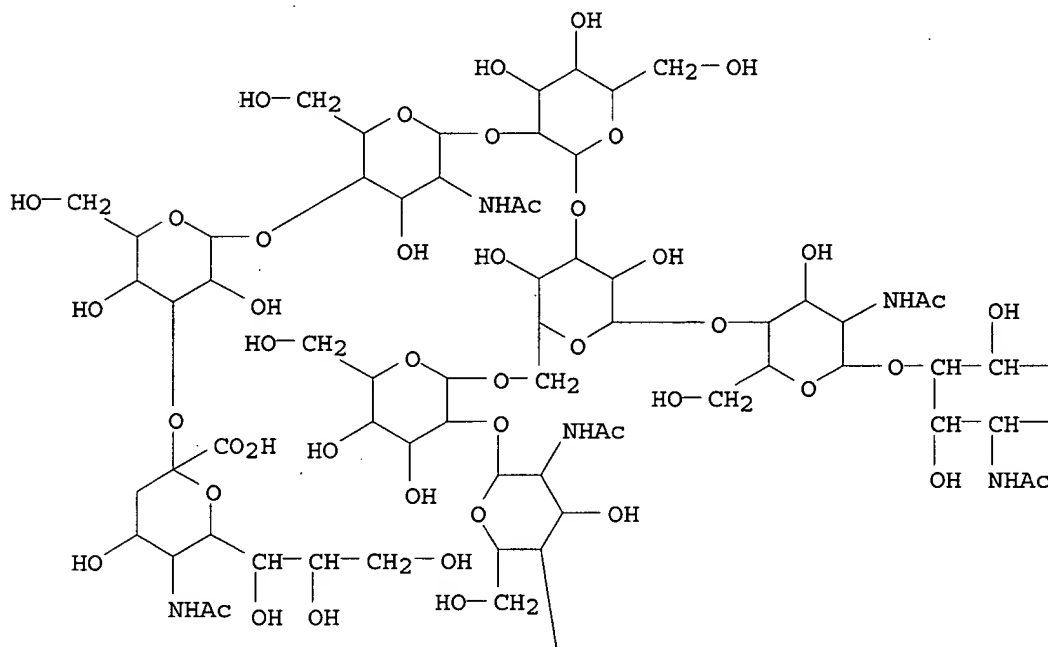
PAGE 2-A



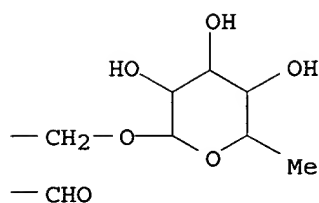
RN 145311-38-2 HCAPLUS

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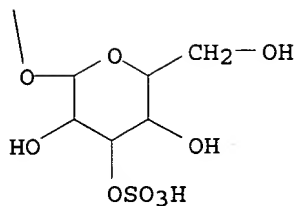
PAGE 1-A



PAGE 1-B



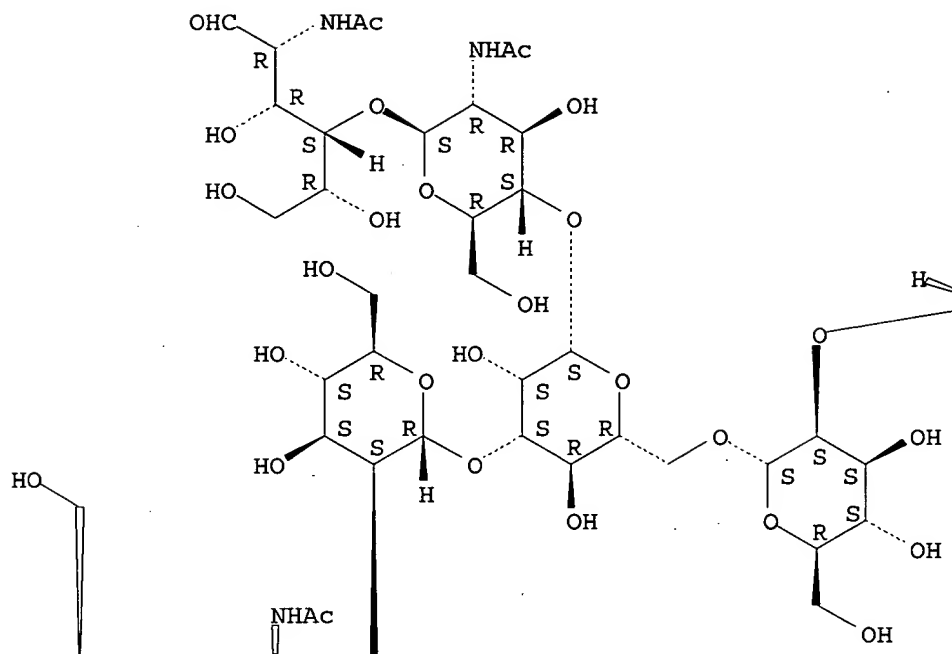
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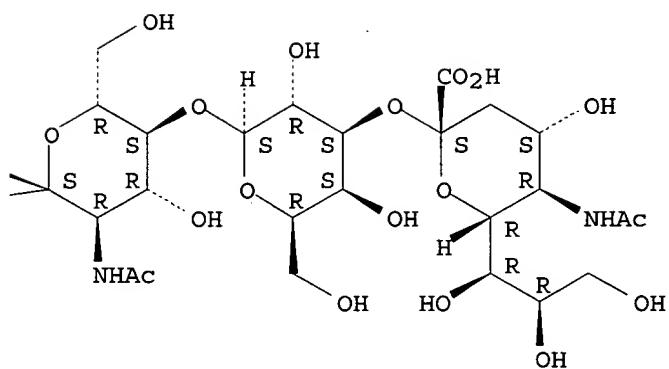
RN 147998-52-5 HCAPLUS
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Absolute stereochemistry.

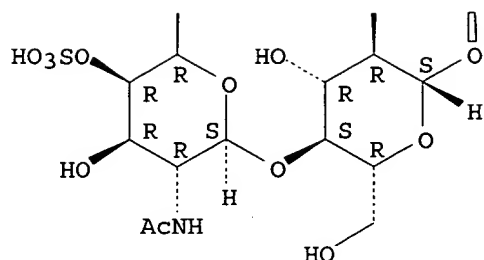
PAGE 1-A



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PAGE 2-A



L15 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:408362 HCAPLUS

DOCUMENT NUMBER: 117:8362

TITLE: Preparation of gangliosides and human immunodeficiency virus inhibitors containing them

INVENTOR(S): Achinami, Kazuo; Hoshino, Hiroo; Suzuki, Yasuo; Nakajima, Katsuyuki

PATENT ASSIGNEE(S): Nippon Kotai Kenkyusho K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, '6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 03246297 | A2 | 19911101 | JP 1990-41926 | 19900222 |
| PRIORITY APPLN. INFO.: | | | JP 1990-41926 | 19900222 |

OTHER SOURCE(S): MARPAT 117:8362

AB Gangliosides I (R1 = H, SO₃H; R1 may differ with each other, but .gtoreq.12 R1 = SO₃H; R2, R3 = H, SO₃H, Q; R4 = fatty acid residue), useful for treatment of AIDS, are prepd. Treatment of 15.6 mg GM1a (extd. from bovine brain) with SO₃-Me₃N complex in DMF at 50-60.degree. for 20 h gave 24 mg GM1a sulfate Me₃N salt, which was treated with CF₃CO₂H in CH₂Cl₂ for 1 h to afford 34% GM1a hexadecasulfate (II). II at 10 .mu.g/mL completely inhibited infection of MT-4 cell by human immunodeficiency virus and at 100 .mu.g/mL did not affect activated partial thromboplastin time.

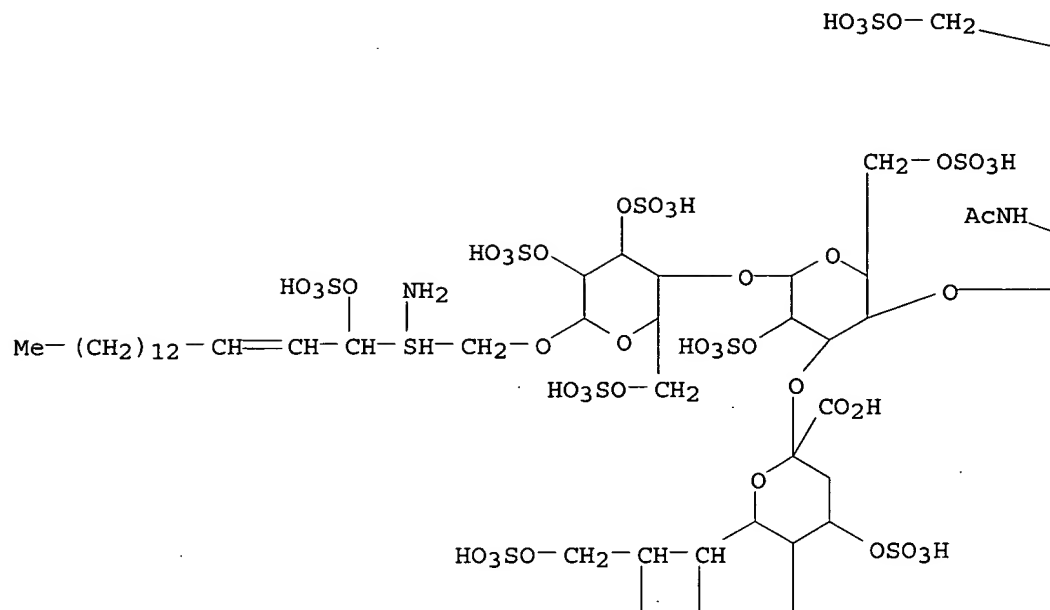
IT 140908-47-0DP, N-acyl deriv. 140908-49-2DP, N-acyl deriv.

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as human immunodeficiency virus inhibitor)

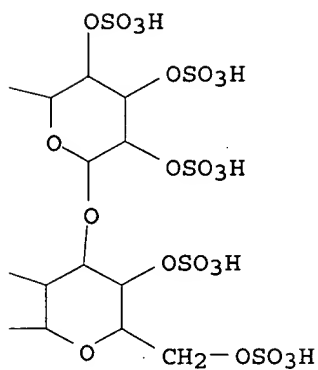
RN 140908-47-0 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-amino-3-(sulfooxy)-4-octadecenyl
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2,3,4,6-tetra-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-2-
(acetyl-amino)-2-deoxy-4,6-di-O-sulfo-.beta.-D-galactopyranosyl-
(1.fwdarw.4)]-O-2,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-,
2,3,6-tris(hydrogen sulfate), [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

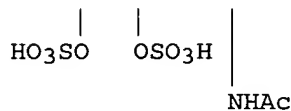
PAGE 1-A



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RN 140908-49-2 HCAPLUS
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 O-(N-acetyl-4,7,8,9-tetra-O-sulfo-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-[O-
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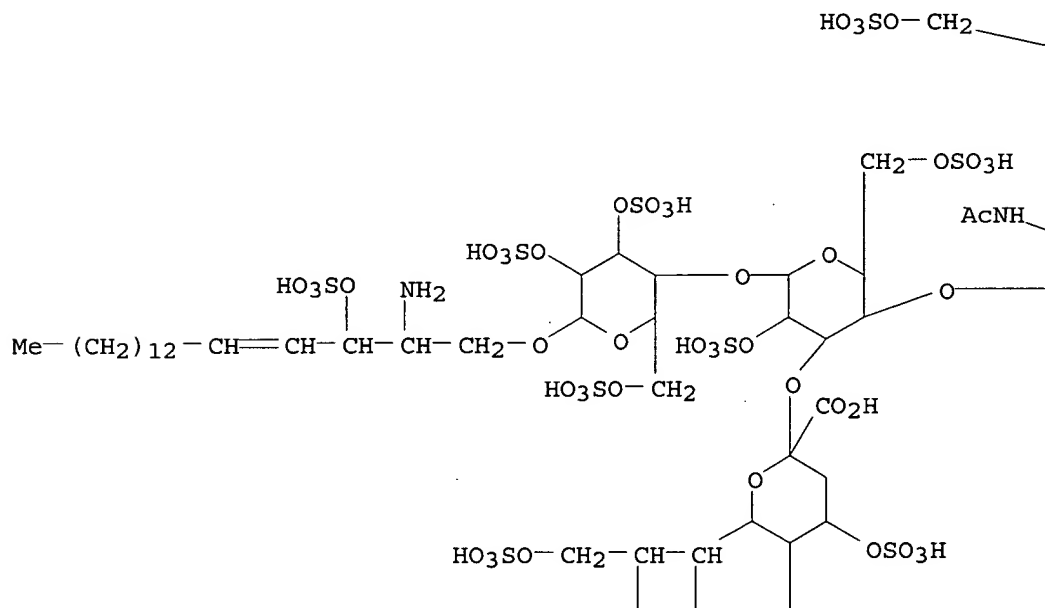
(acetylamino)-2-deoxy-4,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), [R-(R*,S*)]-, compd. with N,N-dimethylmethanamine (9CI) (CA INDEX NAME)

CM 1

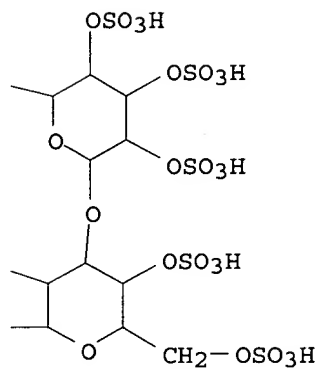
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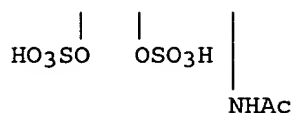
PAGE 1-A



PAGE 1-B



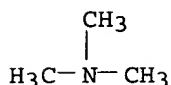
PAGE 2-A



CM 2

CRN 75-50-3

CMF C3 H9 N



L15 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:632653 HCAPLUS

DOCUMENT NUMBER: 115:232653

TITLE: Fast-atom-bombardment mass spectrometry of sulfated oligosaccharides from ovine lutropin

AUTHOR(S): Dell, Anne; Morris, Howard R.; Greer, Fiona; Redfern, Joanne M.; Rogers, Mark E.; Weisshaar, Gerhard; Hiyama, Jun; Renwick, Alistair G. C.

CORPORATE SOURCE: Dep. Biochem., Imp. Coll., London, UK

SOURCE: Carbohydrate Research (1991), 209, 33-50

CODEN: CRBRAT; ISSN: 0008-6215

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The pos.- and neg.-ion fast-atom-bombardment (f.a.b.) mass spectra and the fragmentation of sulfated oligosaccharides derived from ovine lutropin are described. Neg.-ion f.a.b.-m.s. of methylated derivs. offers a sensitive and rapid method for screening glycans for sulfation, for defining the location of sulfated residues, and for sequencing sulfated branches. Pos.-ion f.a.b.-m.s. gives complementary data on non-sulfated branches in both complex and hybrid-type sulfated structures.

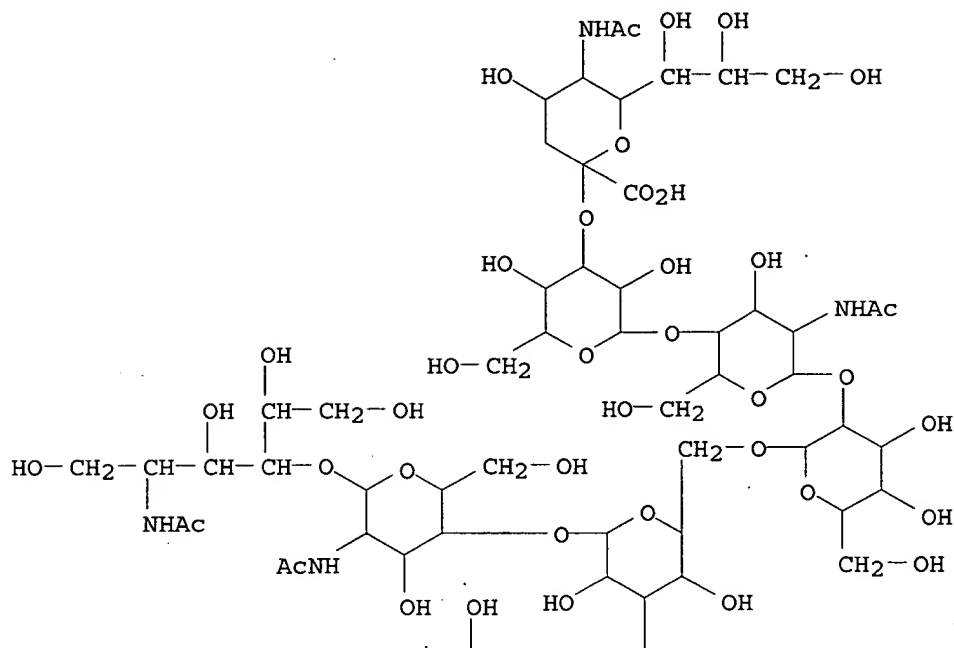
IT 132497-51-9DP, methylated

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and mass spectra of)

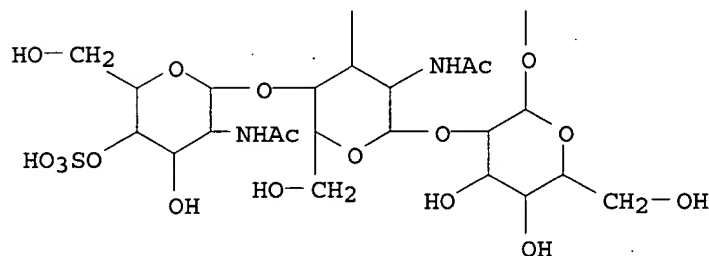
RN 132497-51-9 HCAPLUS

CN D-Glucitol, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

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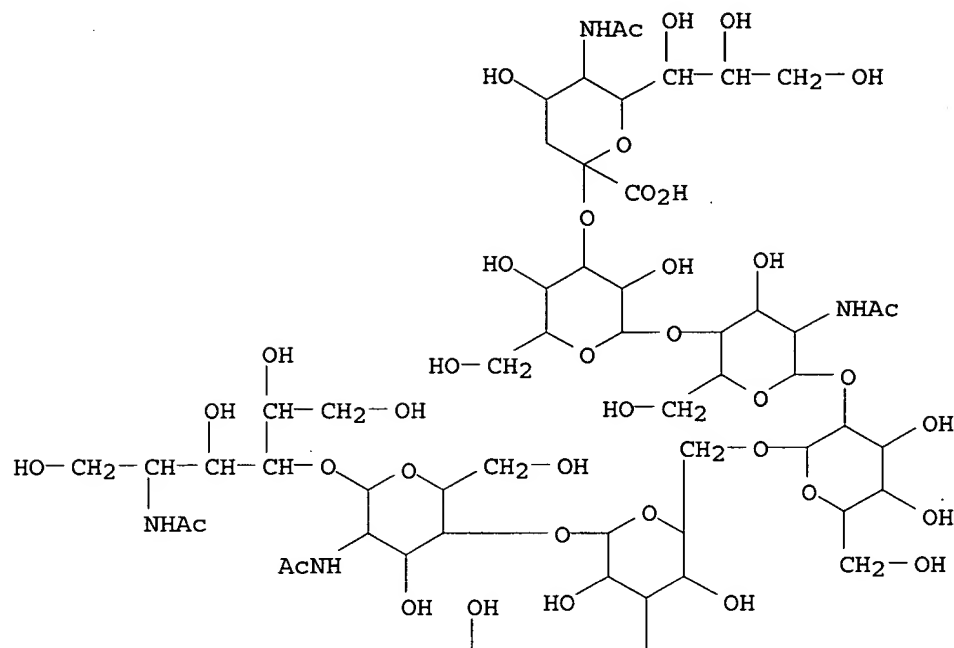
IT 132497-51-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and methylation of)

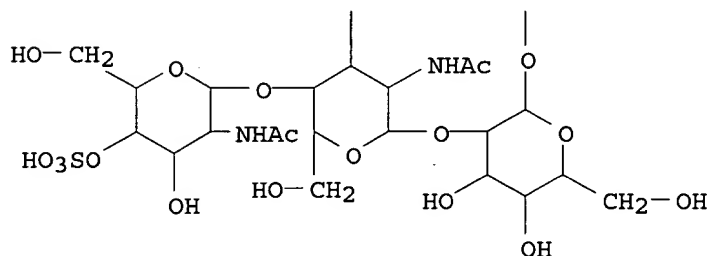
RN 132497-51-9 HCAPLUS

CN D-Glucitol, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

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L15 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:683 HCAPLUS

DOCUMENT NUMBER: 114:683

TITLE: Site-specific N-glycosylation of ovine lutropin.
Structural analysis of one- and two-dimensional proton
NMR spectroscopy

AUTHOR(S): Weisshaar, Gerhard; Hiyama, Jun; Renwick, Alistair G.
C.

CORPORATE SOURCE: Dep. Biochem., Univ. Auckland, Auckland, N. Z.
SOURCE: European Journal of Biochemistry (1990), 192(3),
741-51

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Asn-linked carbohydrate structures of the heterodimeric glycoprotein
hormone lutropin from ovine pituitary glands were examd. at each of its 3

glycosylation sites using 1- and 2-dimensional 400-MHz ¹H-NMR spectroscopy. Highly purified, biol. active ovine lutropin (oLH) was dissocd. and sepd. into its .alpha. and .beta. subunits (oLH.alpha., glycosylated at Asn56 and Asn82; oLH.beta. glycosylated at Asn13). Oligosaccharides from intact oLH.beta. and from glycopeptides obtained after tryptic digestion of oLH.alpha. were released by hydrazinolysis and subsequently fractionated according to charge and size by anion-exchange and ion-suppression amine-adsorption HPLC, resp. ¹H-NMR anal. revealed, that monosulfated, mostly hybrid-type, oligosaccharides predominate at both glycosylation sites of oLH.alpha., whereas a disulfated, diantennary N-acetylglucosamine-type structure accounts for > 60% of total oligosaccharides in the .beta. subunit. Furthermore, the saccharides attached to the .beta. subunit are almost completely fucosylated (Fuc.alpha.1-6) at the reducing terminal N-acetylglucosaminitol, whereas the sugar chains in oLH.alpha. are either approx. 50% fucosylated (Asn82) or contain fucose only to a minor extent (Asn56).

IT 130847-64-2

RL: BIOL (Biological study)

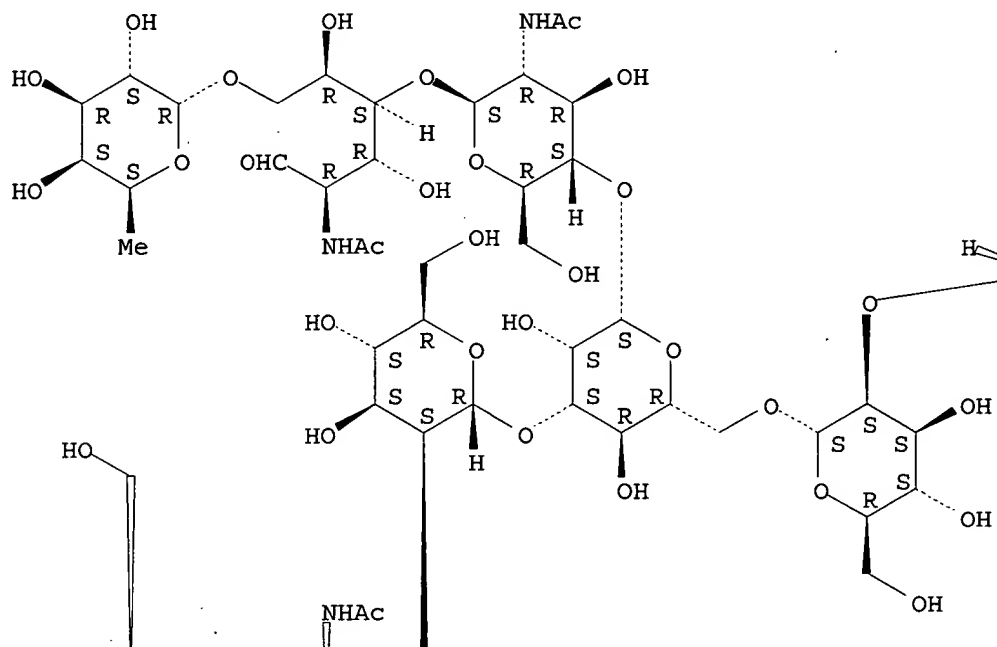
(of LH .alpha.- and .beta.-subunits)

RN 130847-64-2 HCAPLUS

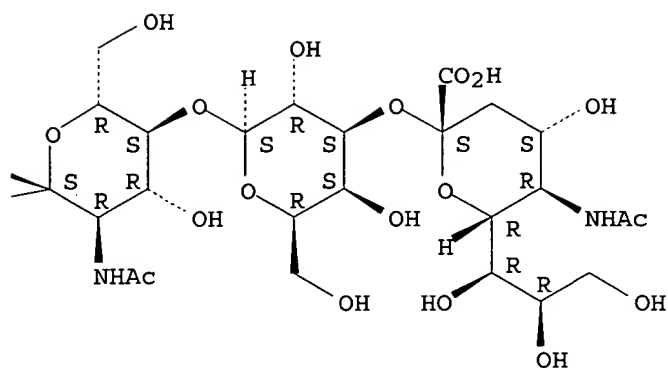
CN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

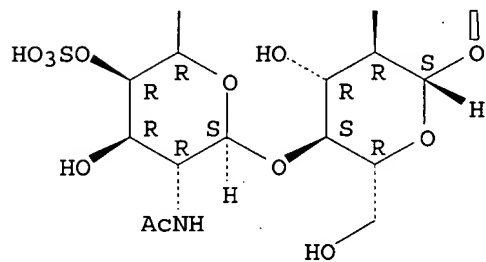
PAGE 1-A



PAGE 1-B



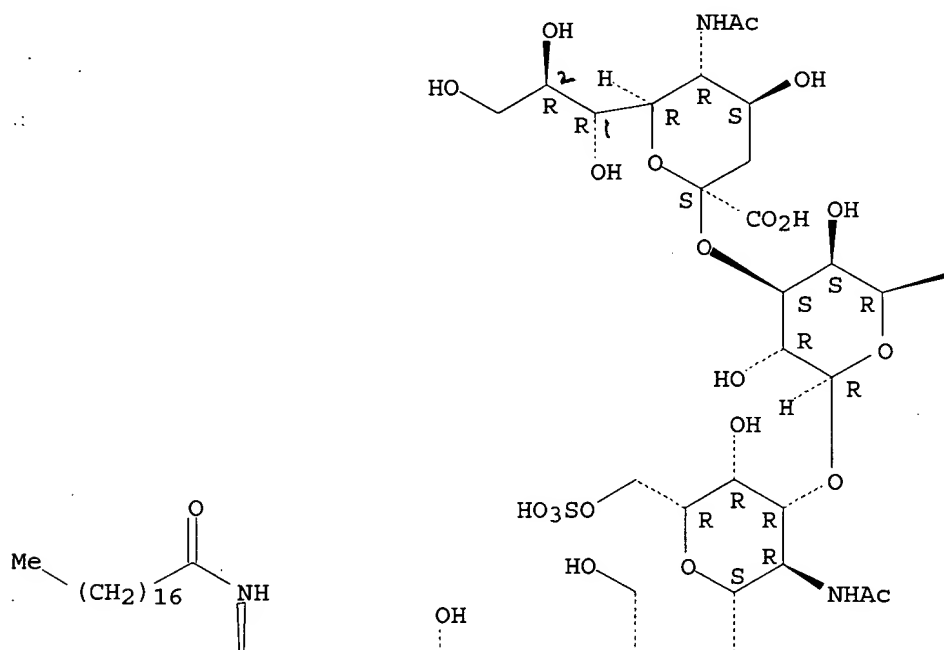
PAGE 2-A



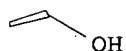
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI)
MF C73 H131 N3 O37 S2 . 3 Na

Absolute stereochemistry.
Double bond geometry as shown.

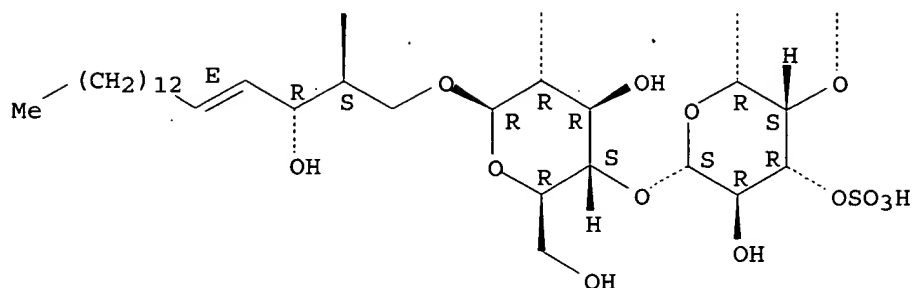
PAGE 1-A



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PAGE 2-A



● 3 Na

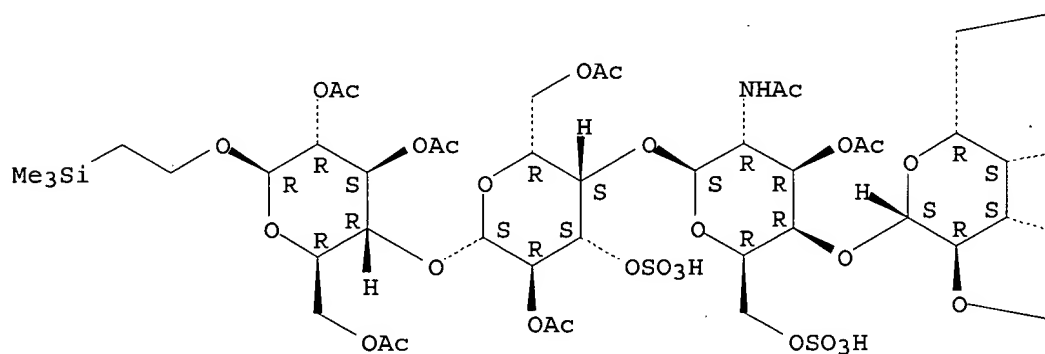
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

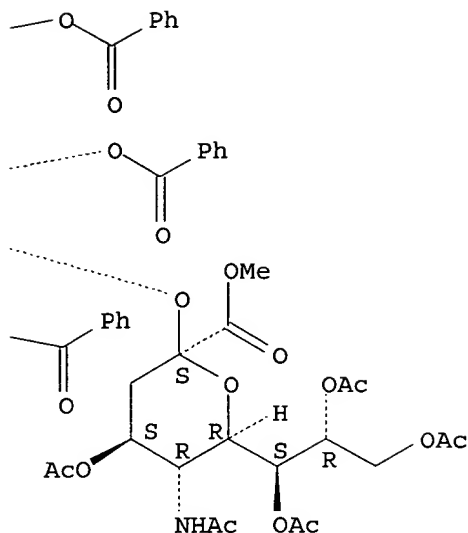
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-triacetate (9CI)
 MF C84 H108 N2 O48 S2 Si
 CI COM

Absolute stereochemistry. Rotation (+).

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PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> d sca

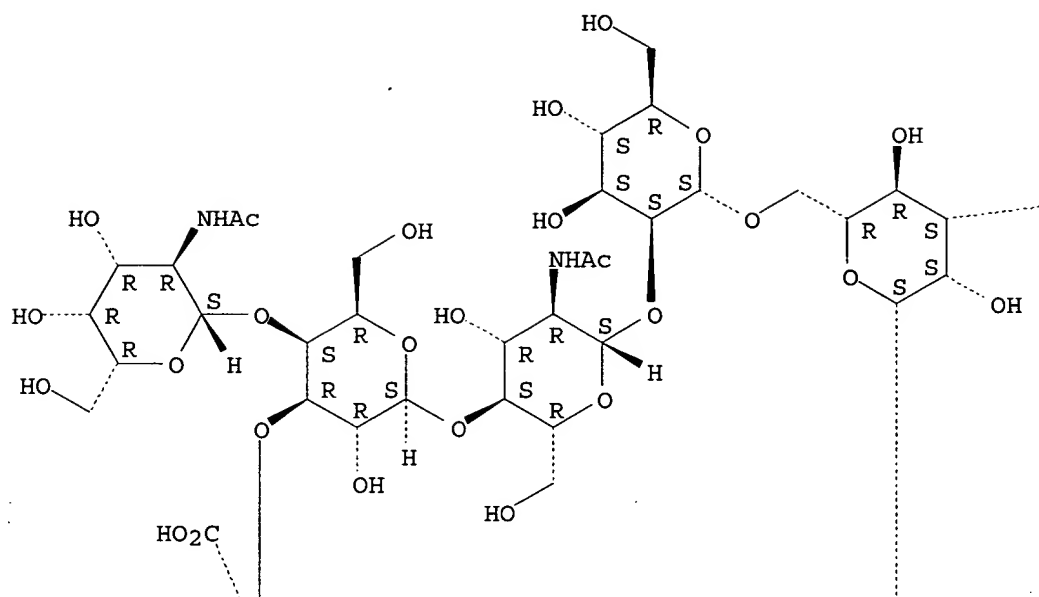
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

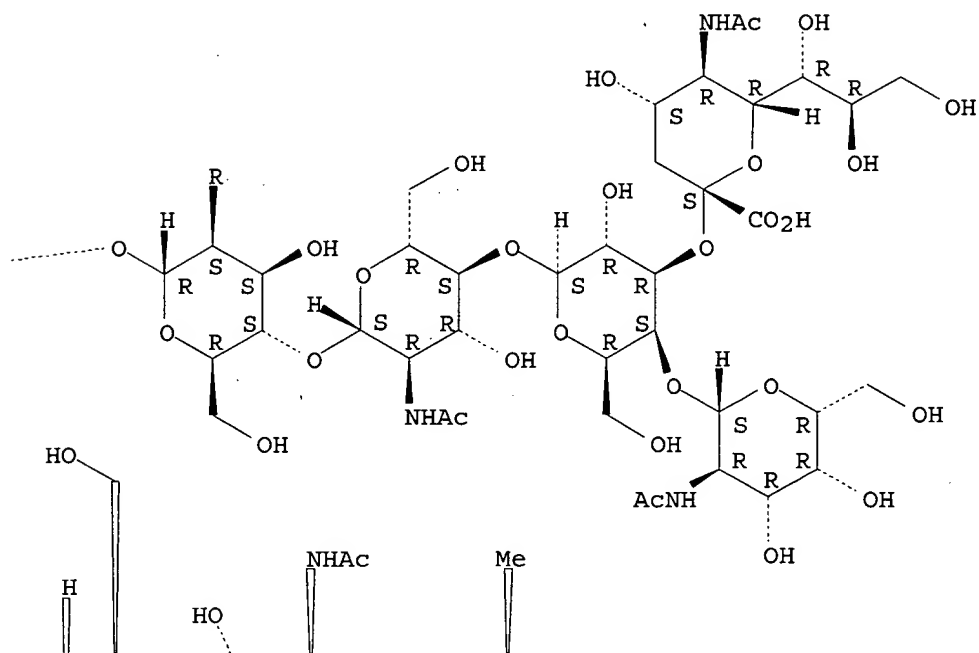
MF C120 H197 N9 O89 S

Absolute stereochemistry.

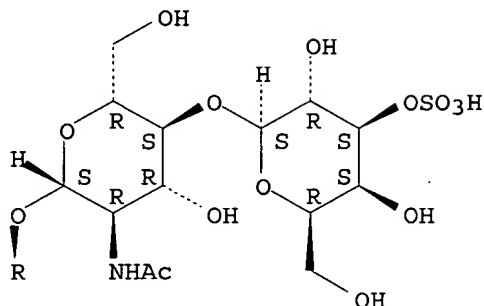
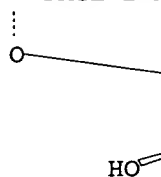
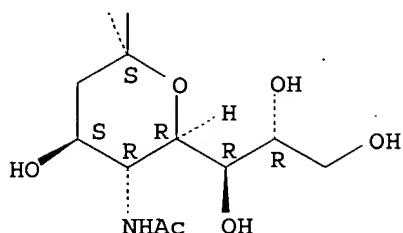
PAGE 1-A



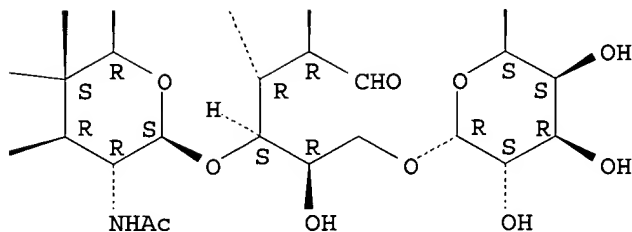
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):40

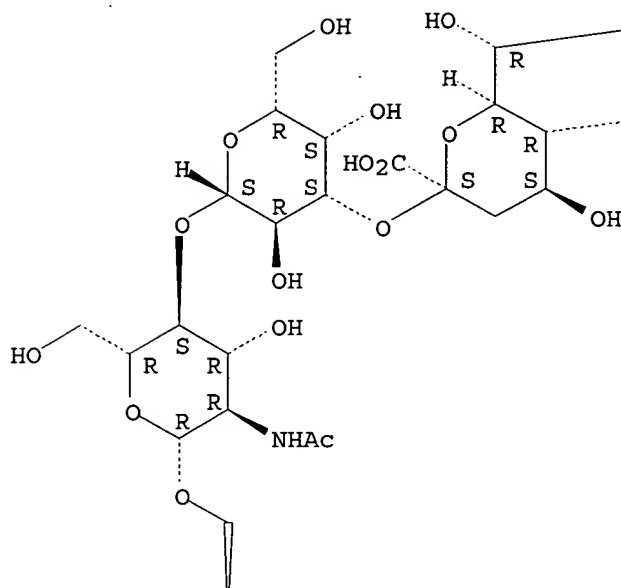
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

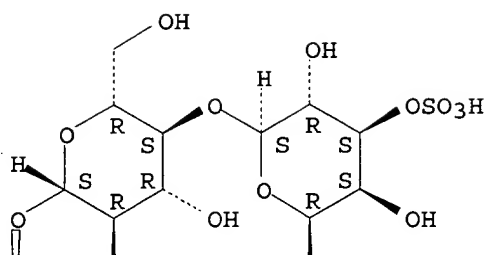
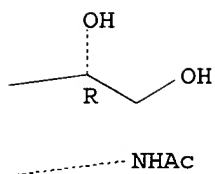
MF C126 H207 N9 O97 S2

Absolute stereochemistry.

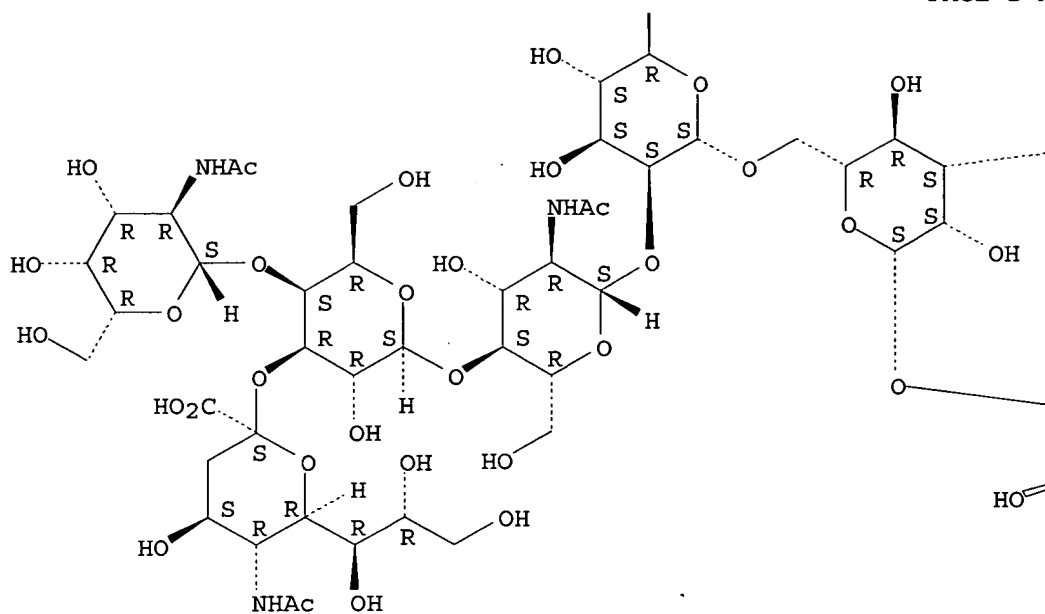
PAGE 1-A



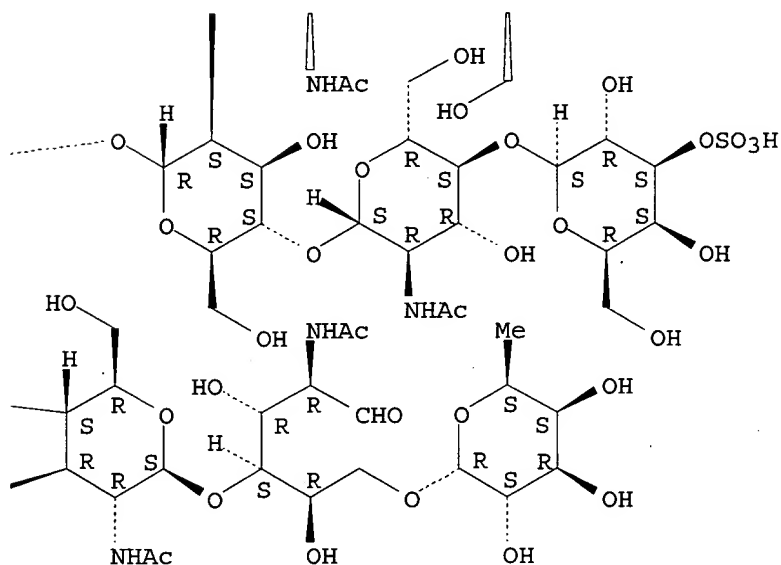
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

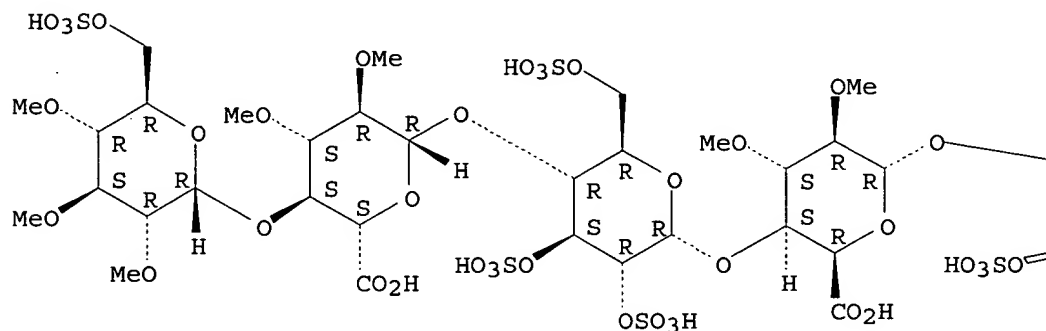
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-

(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[(phenylmethoxy) carbonyl] amino] -, 1,4-bis (hydrogen sulfate) (9CI)

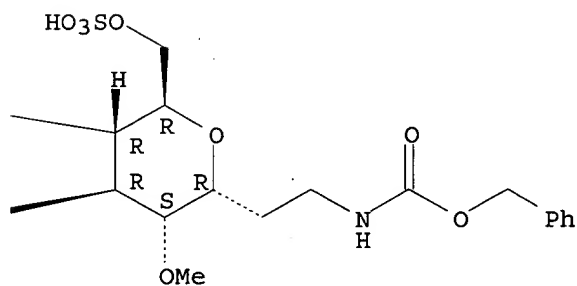
MF C48 H75 N 047 S6

Absolute stereochemistry.

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L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

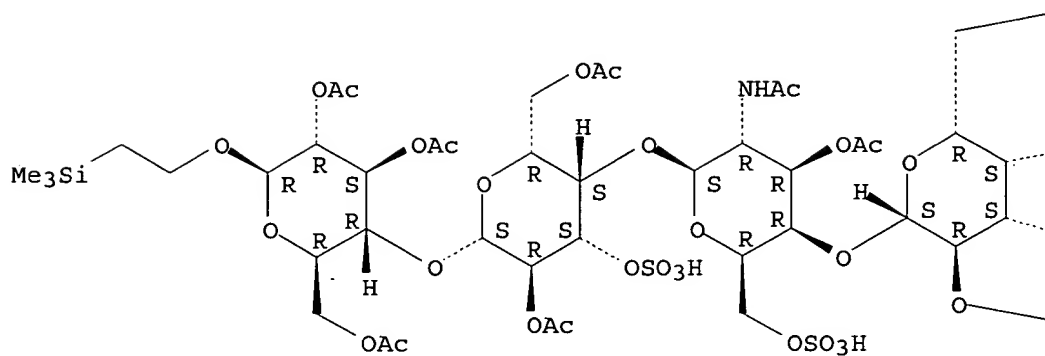
IN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-triacetate, compd. with pyridine (1:2) (9CI)

MF C84 H108 N2 O48 S2 Si . 2 C5 H5 N

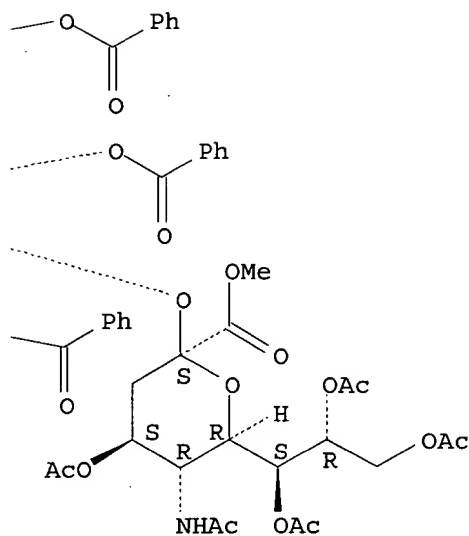
CM 1

Absolute stereochemistry. Rotation (+).

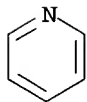
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CM 2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

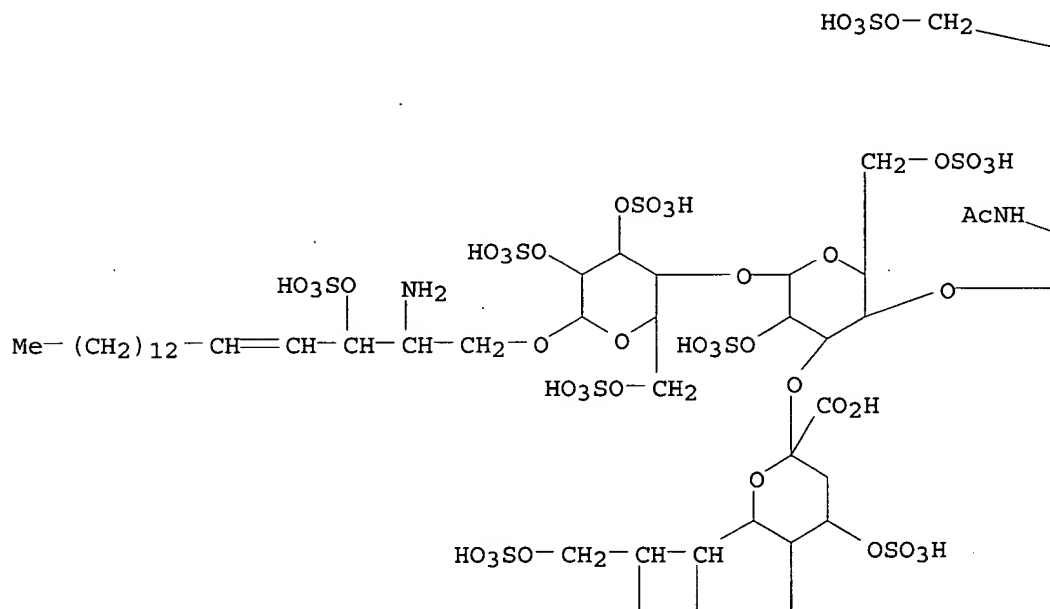
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN .beta.-D-Glucopyranoside, 2-amino-3-(sulfooxy)-4-octadecenyl
 O-(N-acetyl-4,7,8,9-tetra-O-sulfo-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-[O-

2,3,4,6-tetra-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-2-(
 (acetylamino)-2-deoxy-4,6-di-O-sulfo-.beta.-D-galactopyranosyl-
 (1.fwdarw.4))-O-2,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-,
 2,3,6-tris(hydrogen sulfate), [R-(R*,S*)]-, compd. with
 N,N-dimethylmethanamine (9CI)

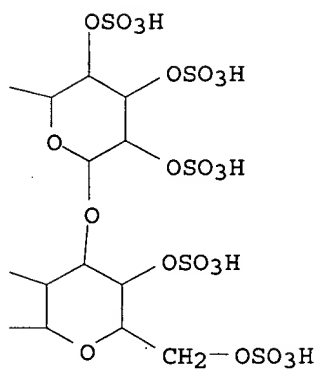
MF C55 H97 N3 O78 S16 . x C3 H9 N

CM 1

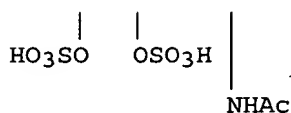
PAGE 1-A



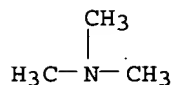
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CM 2



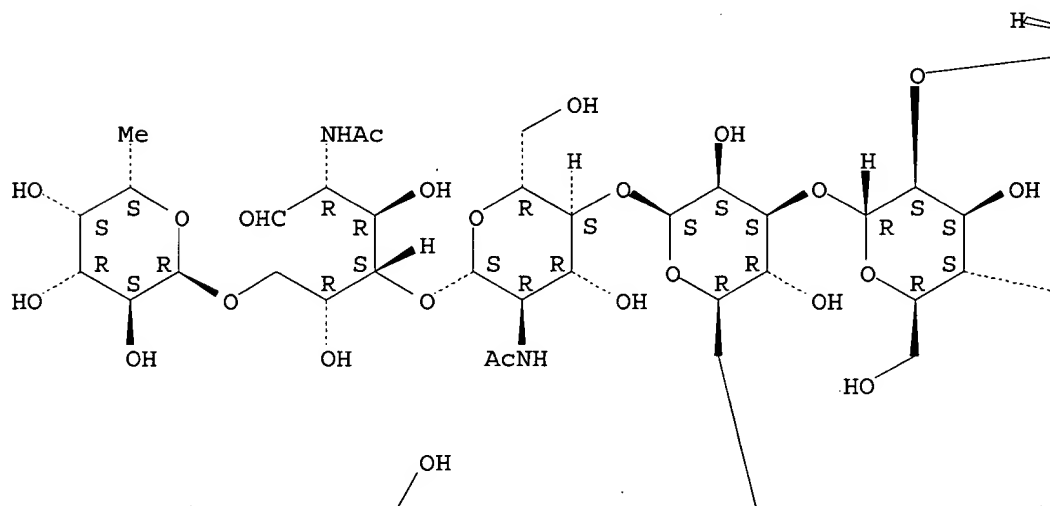
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O- (N-acetyl-.alpha.-neuraminosyl) - (2.fwdarw.6) -O-.beta.-D-galactopyranosyl-(1.fwdarw.4) -O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2) -O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4) -2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)] -O-.alpha.-D-mannopyranosyl-(1.fwdarw.3) -O-[O- (N-acetyl-.alpha.-neuraminosyl) - (2.fwdarw.3) -O-.beta.-D-galactopyranosyl-(1.fwdarw.4) -O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2) -.alpha.-D-mannopyranosyl-(1.fwdarw.6)] -O-.beta.-D-mannopyranosyl-(1.fwdarw.4) -O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4) -O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)] -2-(acetylamino)-2-deoxy- (9CI)

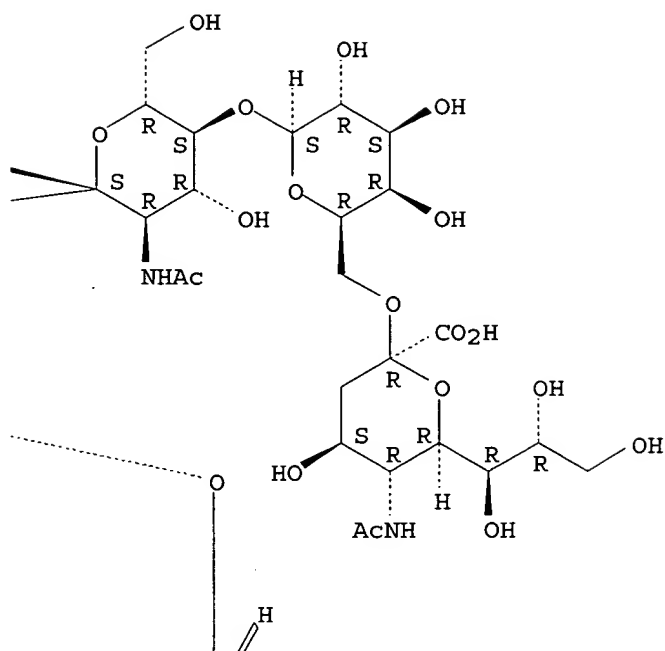
MF C104 H171 N7 O79 S

Absolute stereochemistry.

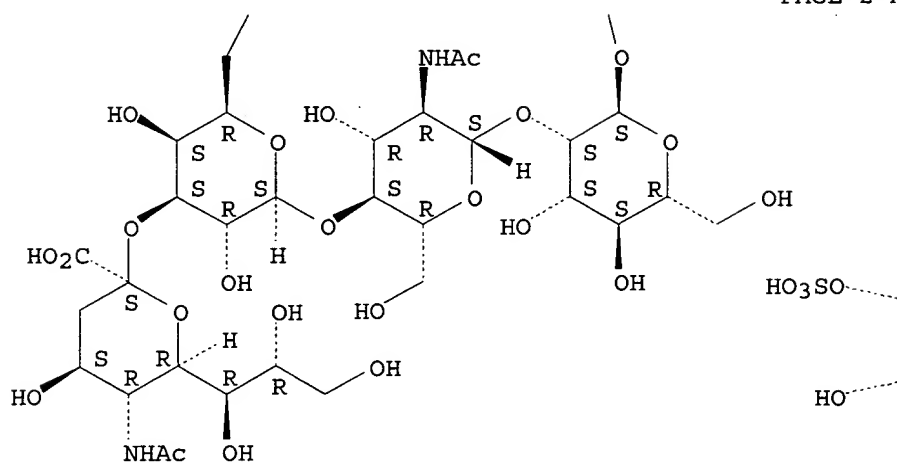
PAGE 1-A



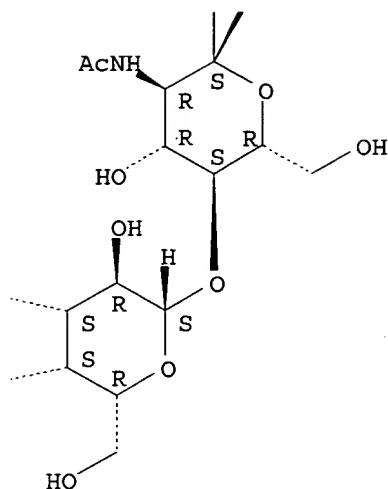
PAGE 1-B



PAGE 2-A



PAGE 2-B

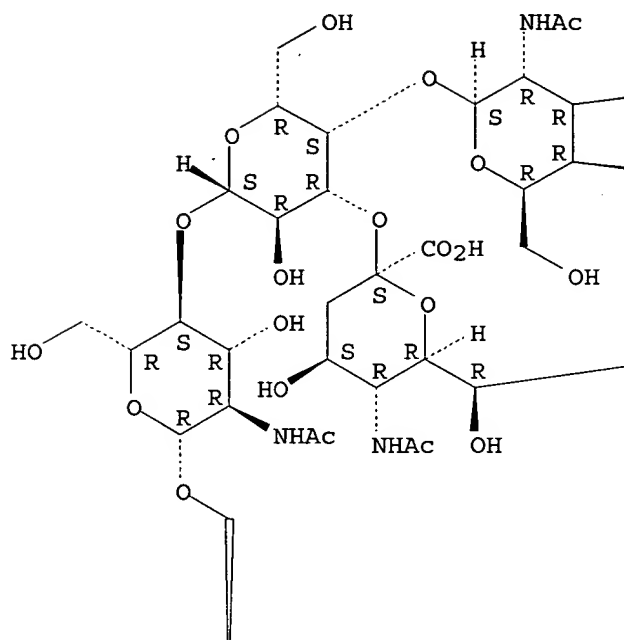


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

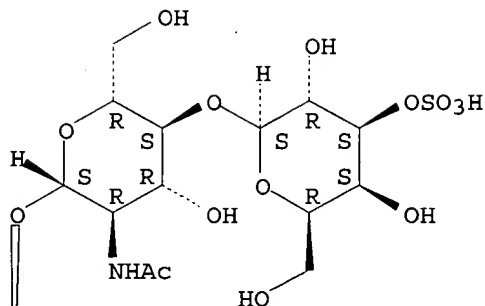
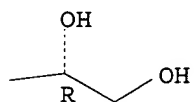
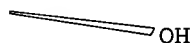
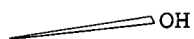
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-2-(acetylamino)-2-deoxy-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)
 MF C134 H220 N10 O102 S2

Absolute stereochemistry.

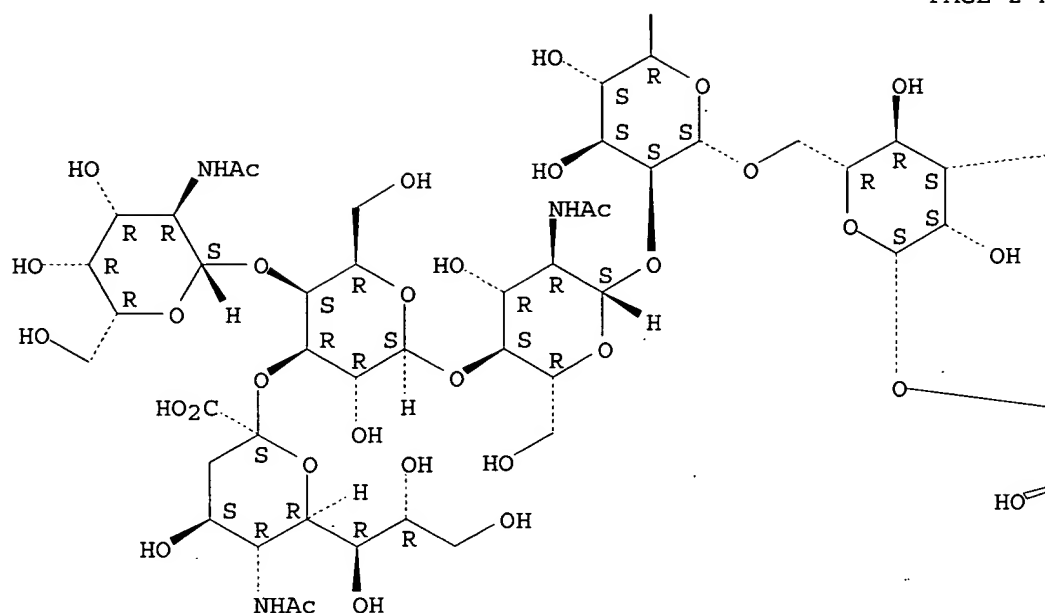
PAGE 1-A



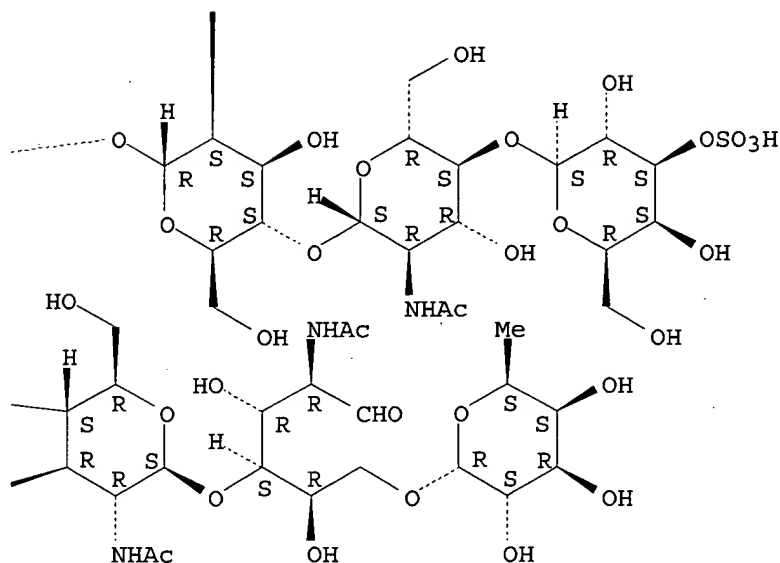
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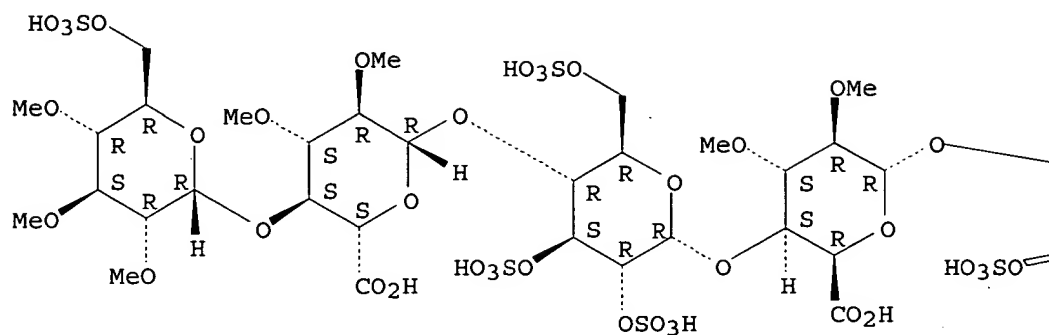
PAGE 2-B



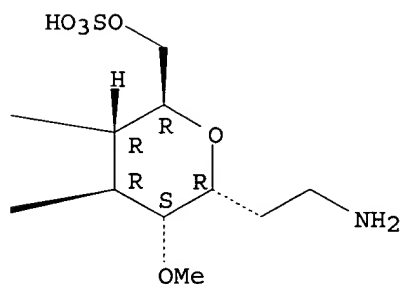
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-L-gulo-Octitol, 0-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-8-amino-2,6-anhydro-7,8-dideoxy-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI)
 MF C40 H69 N O45 S6

Absolute stereochemistry.

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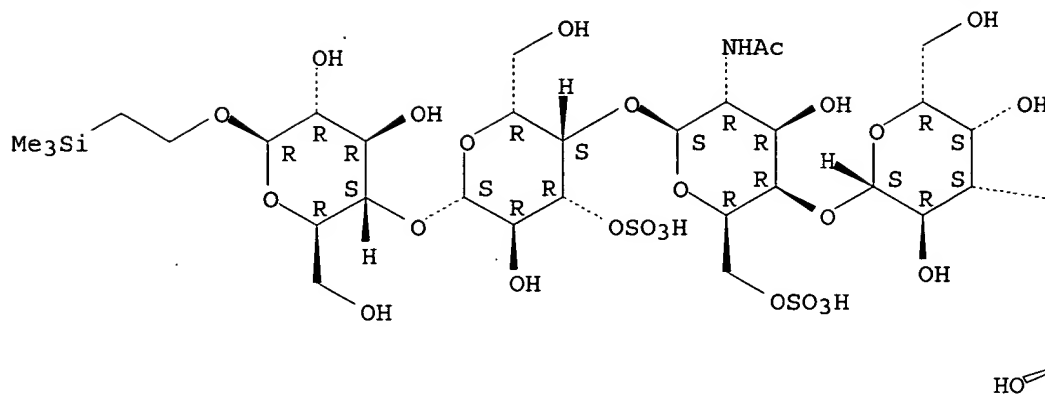


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-.alpha.-
 neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-
 (acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-
 O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, trisodium salt (9CI)
 MF C42 H74 N2 O35 S2 Si . 3 Na

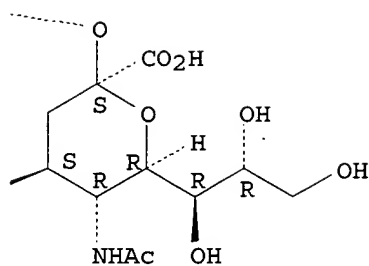
Absolute stereochemistry. Rotation (-).

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● 3 Na

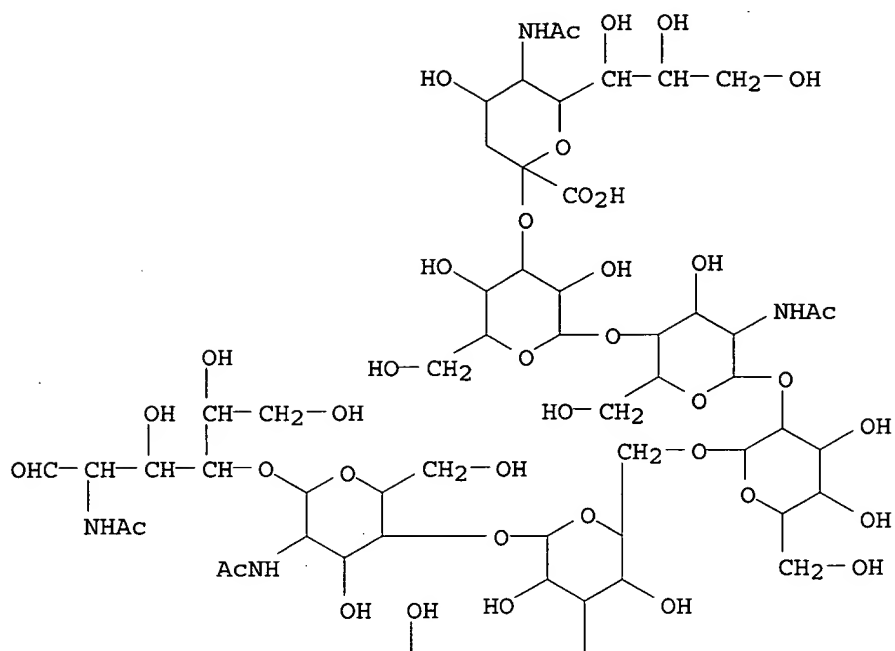
PAGE 1-B



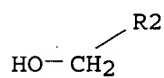
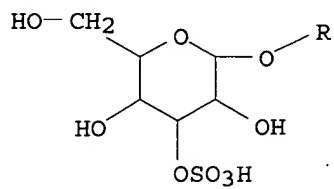
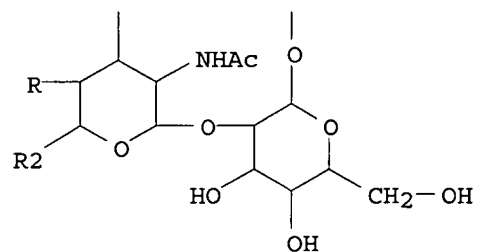
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)
 MF C73 H121 N5 O57 S

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

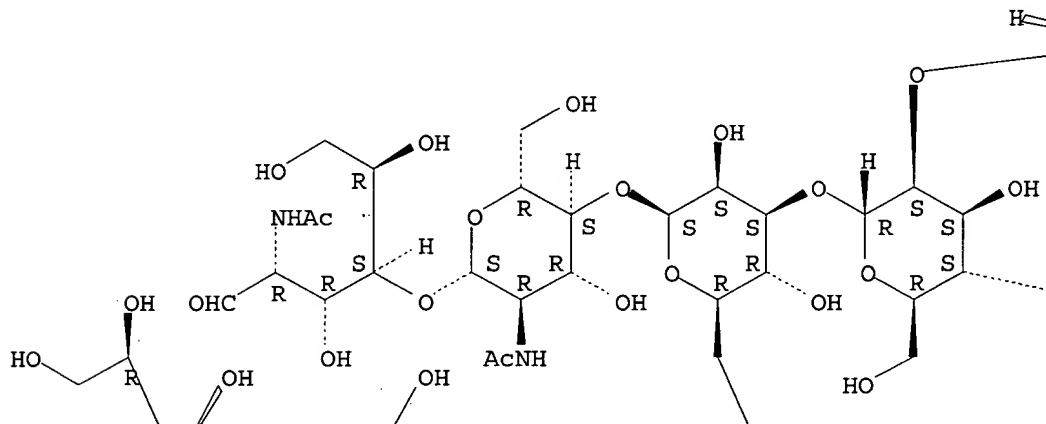
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

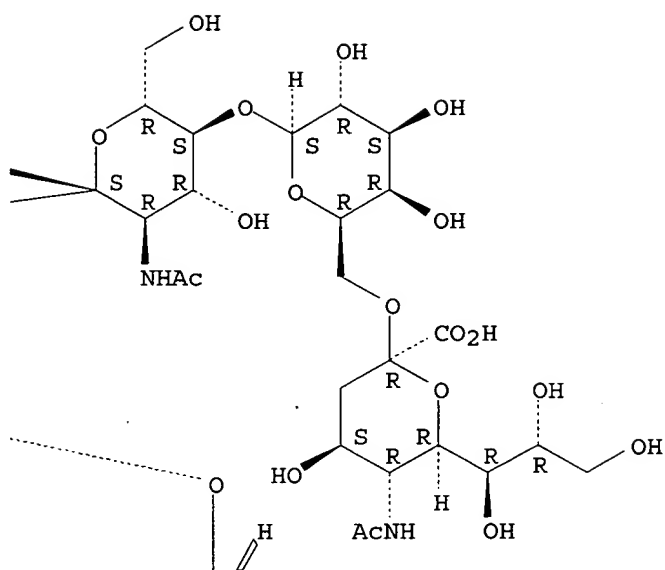
MF C98 H161 N7 O75 S

Absolute stereochemistry.

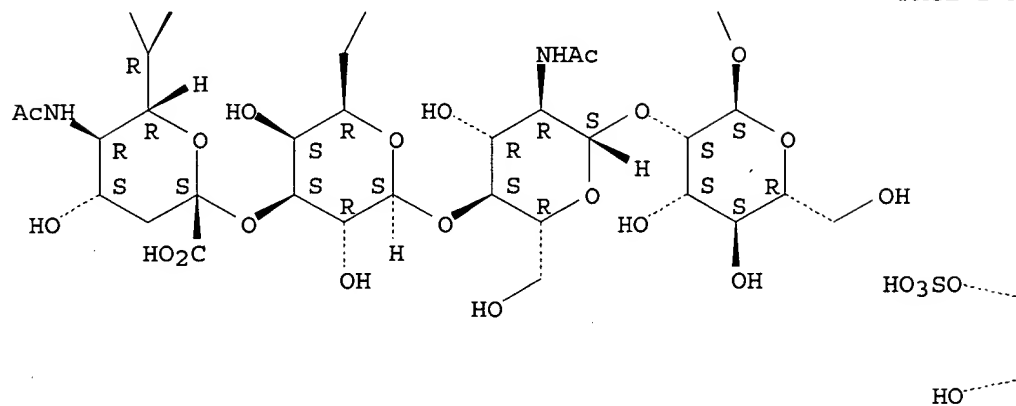
PAGE 1-A



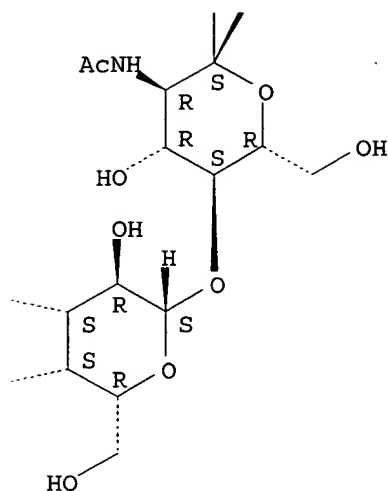
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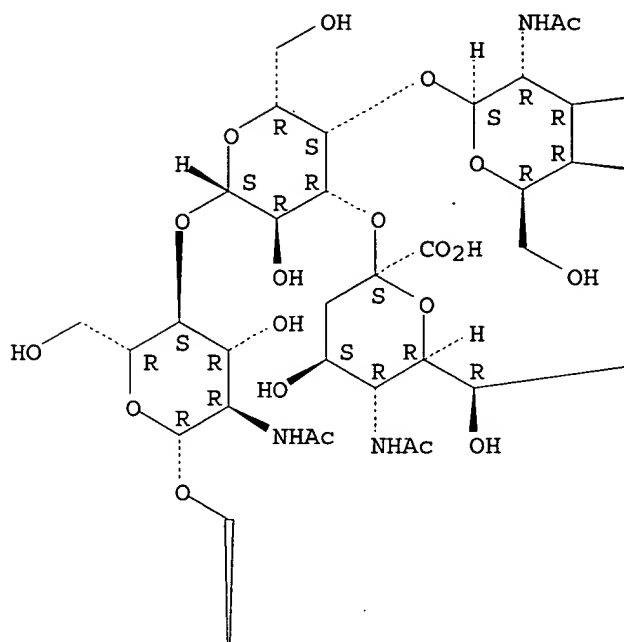


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

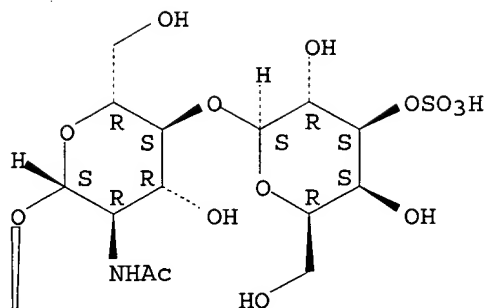
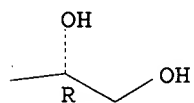
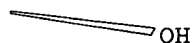
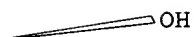
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-
 (1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-
 galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.2)-O-[O-2-(acetylamino)-2-deoxy-.alpha.-D-
 galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-
 (2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-
 deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-
 (1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-
 (acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-
 .beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-
 .beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)
 MF C128 H210 N10 O98 S2

Absolute stereochemistry.

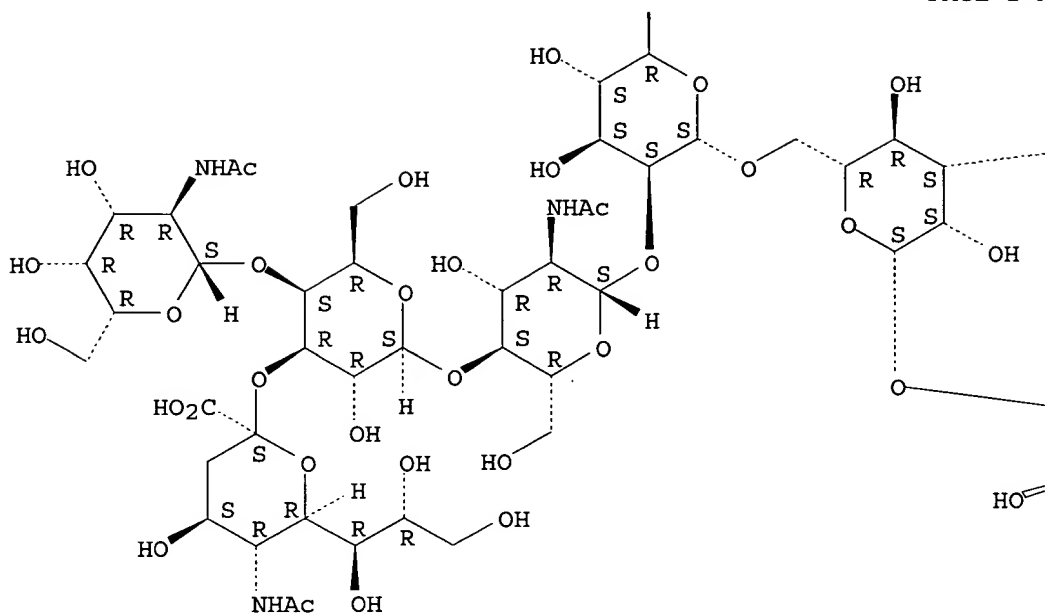
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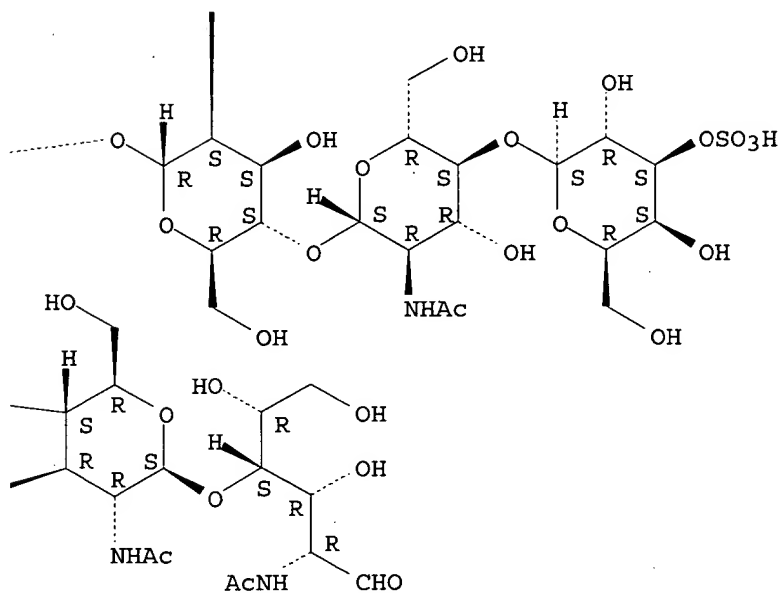
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

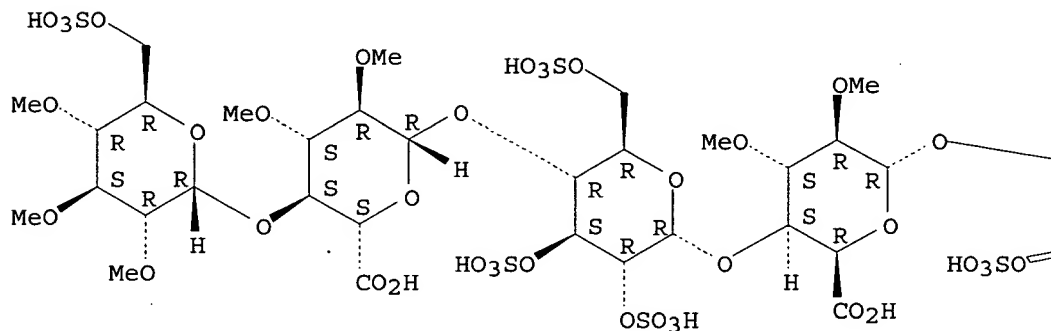
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-

2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[[(2R)-1-oxo-2,3-bis[[[(phenylmethoxy)carbonyl]amino]propyl]amino]-, 1,4-bis(hydrogen sulfate) (9CI)

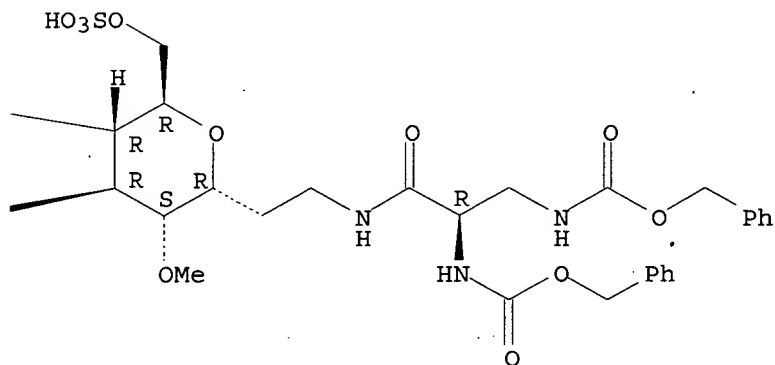
MF C59 H87 N3 O50 S6

Absolute stereochemistry.

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L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

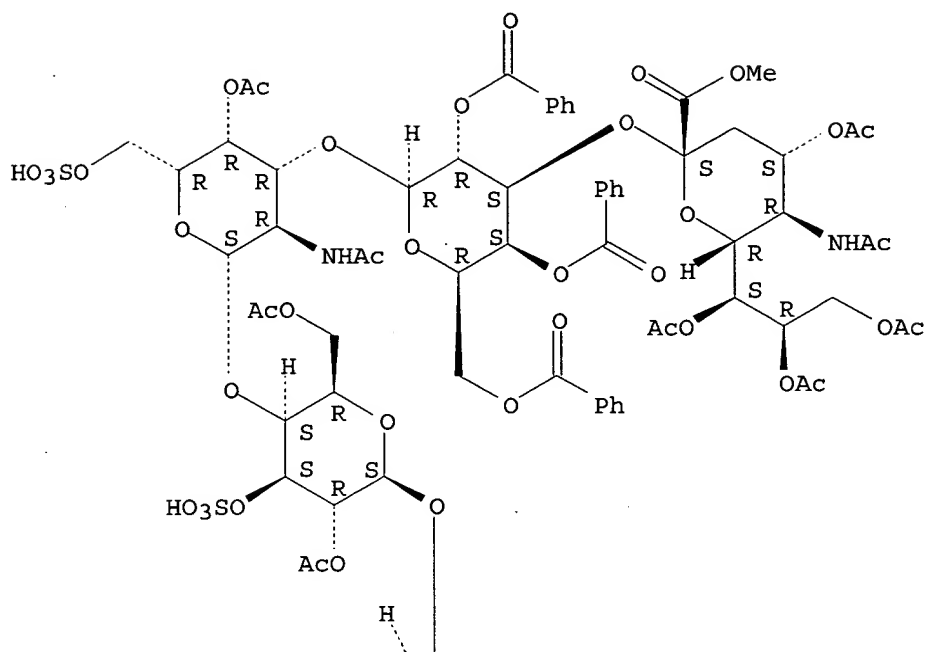
IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy)methyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI)

MF C122 H169 N3 O51 S2 . 2 C5 H5 N

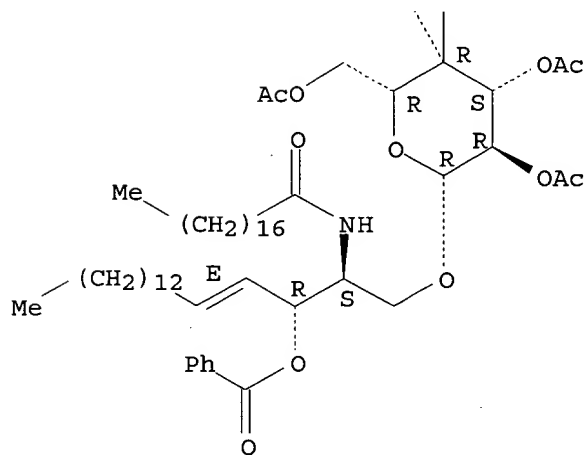
CM 1

Absolute stereochemistry.
Double bond geometry as shown.

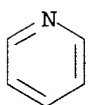
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CM 2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

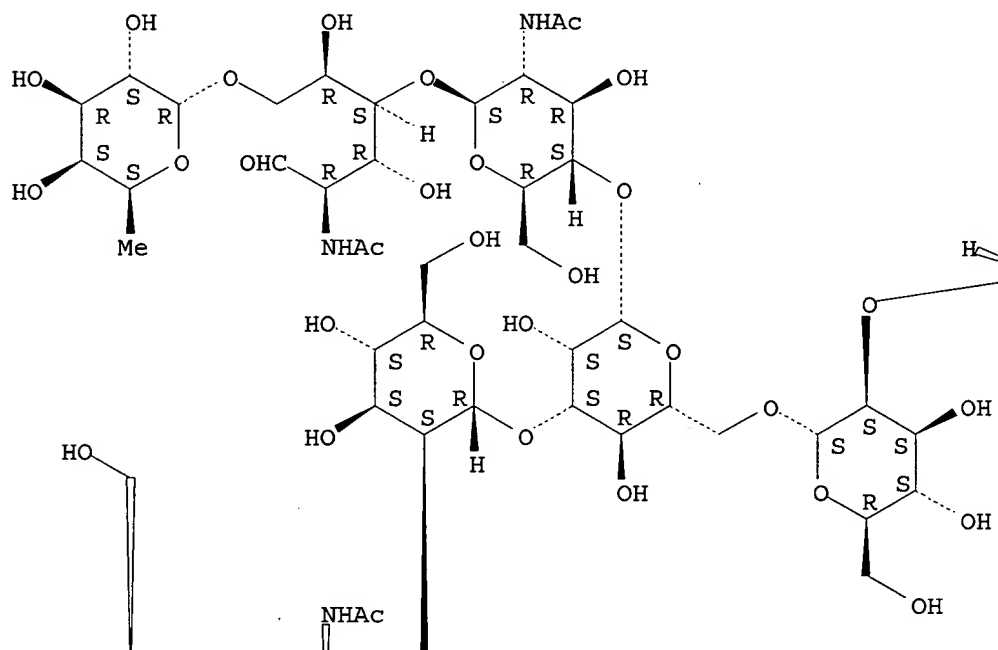
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

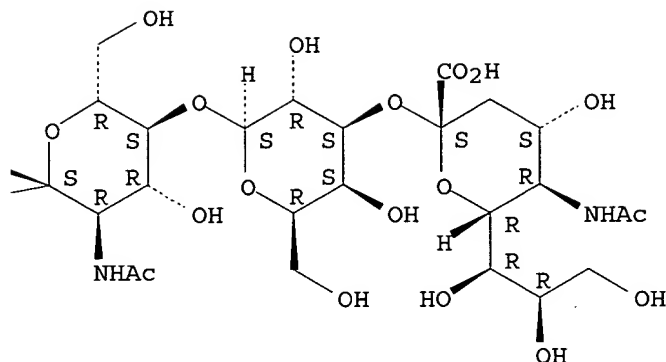
MF C79 H131 N5 O61 S

Absolute stereochemistry.

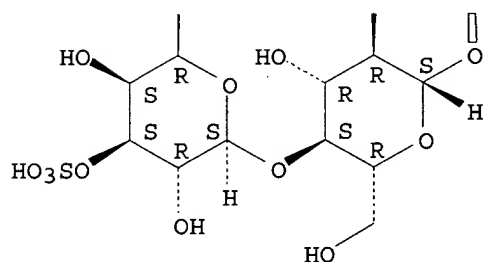
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

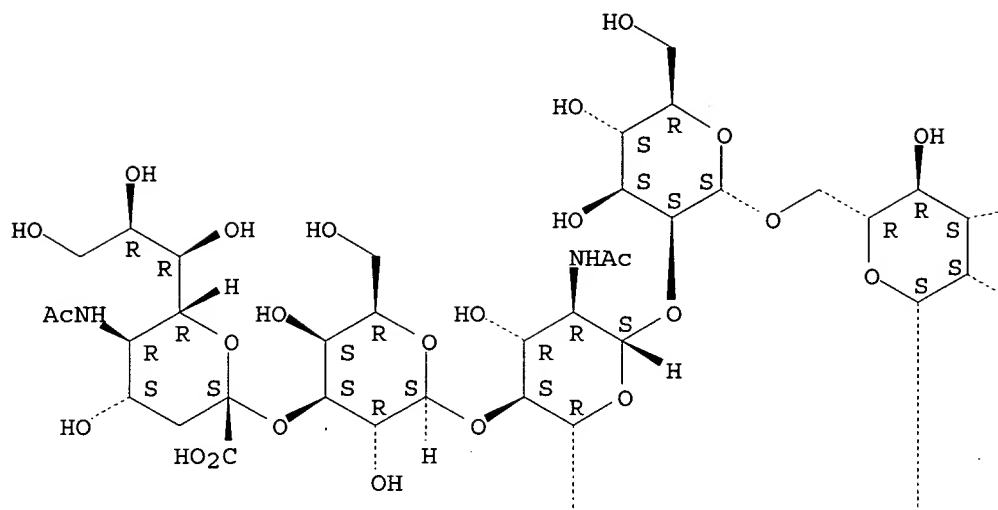
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

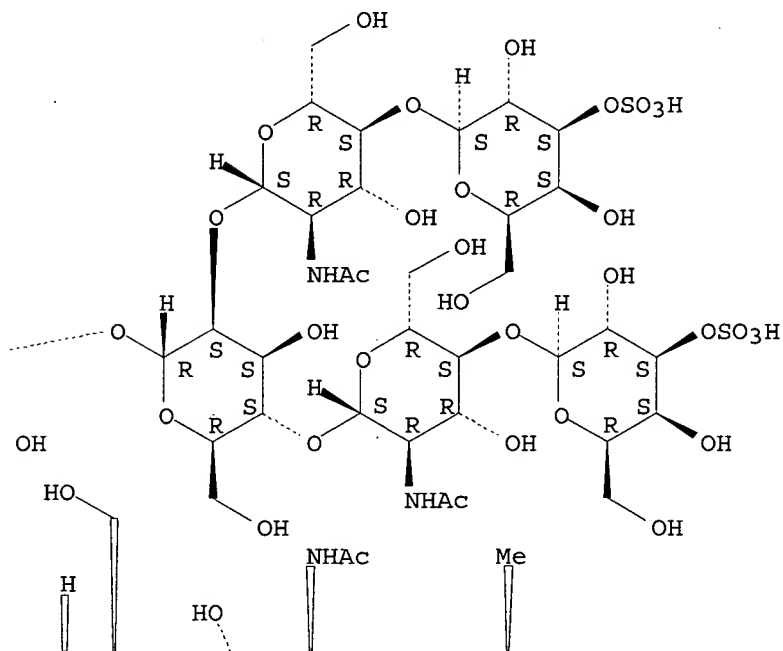
MF C93 H154 N6 O74 S2

Absolute stereochemistry.

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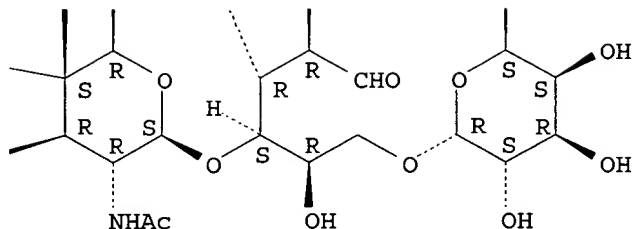
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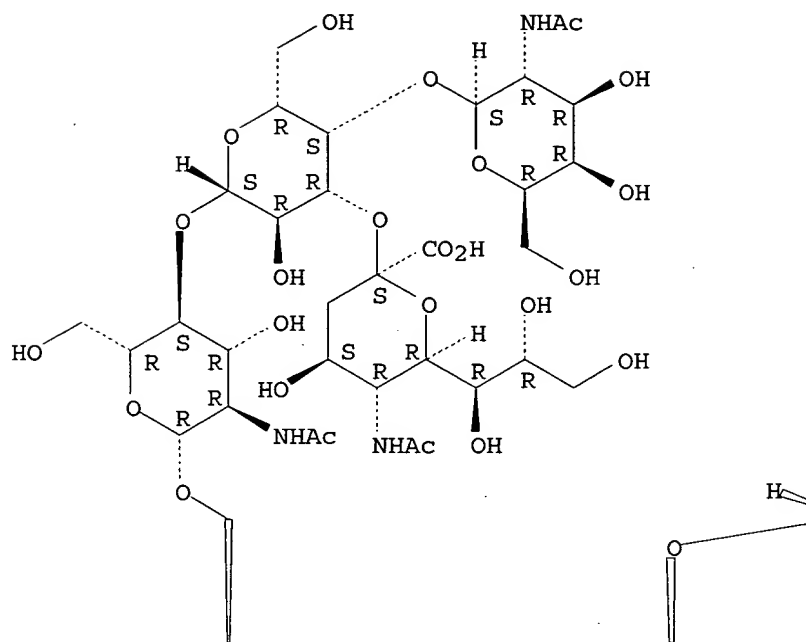


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

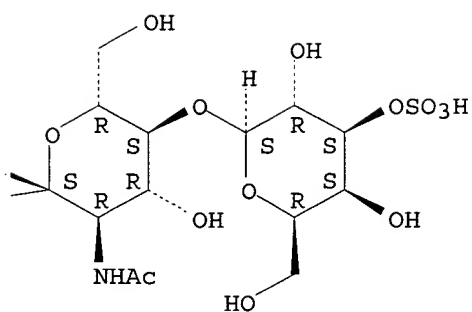
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)
 MF C115 H190 N8 O92 S3

Absolute stereochemistry.

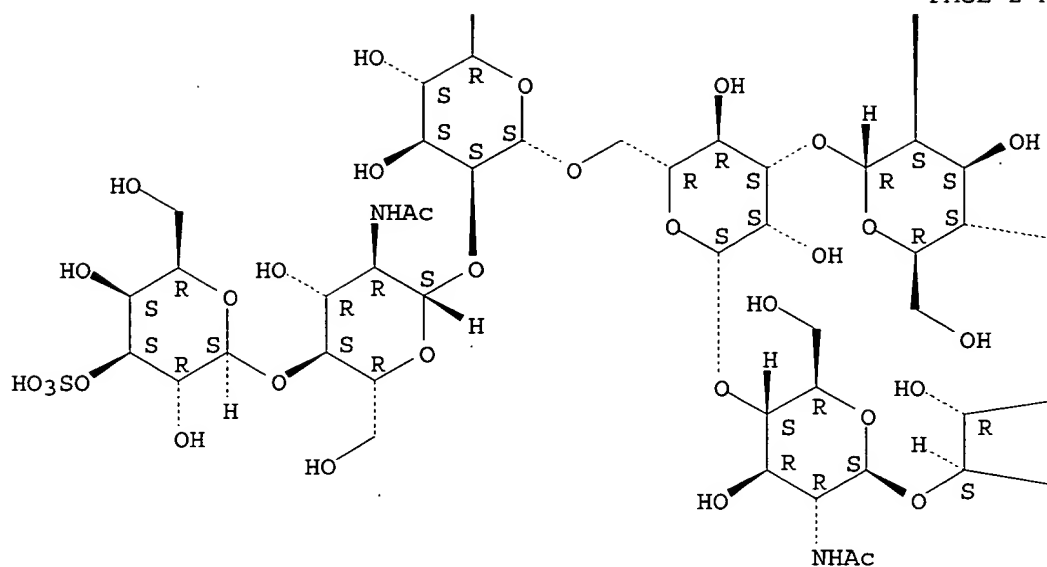
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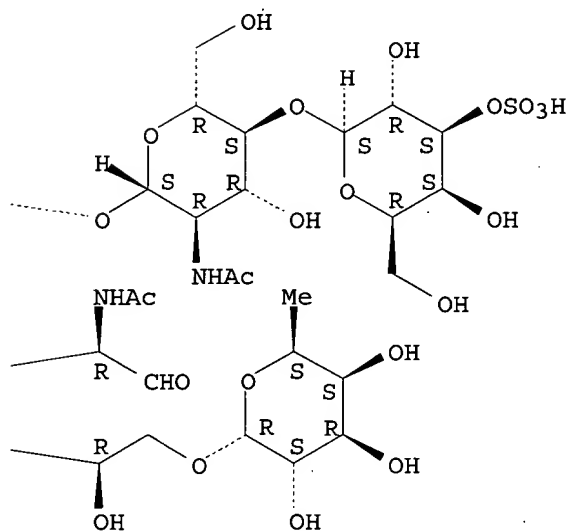
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PAGE 2-B



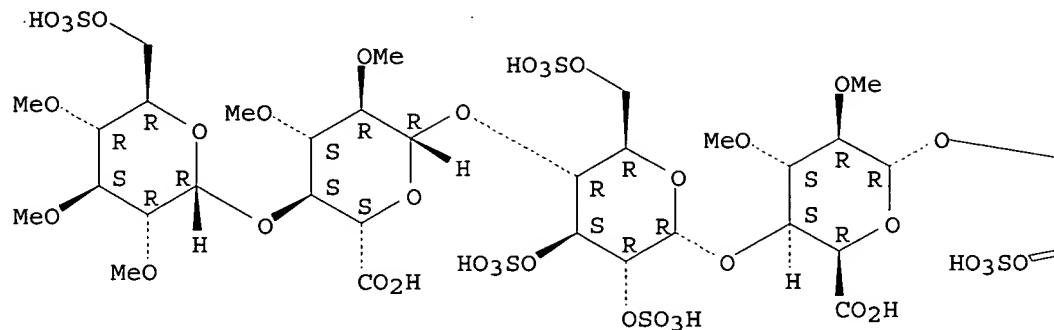
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-8-[[(2R)-2,3-diamino-1-oxopropyl]amino]-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI)

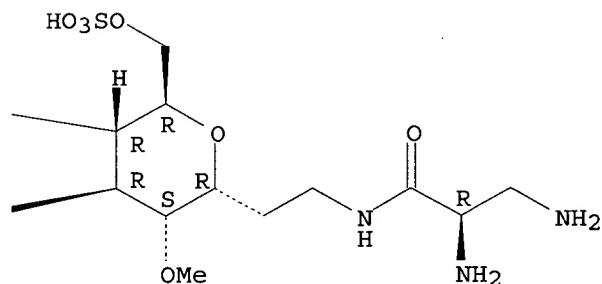
MF C43 H75 N3 O46 S6

Absolute stereochemistry.

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

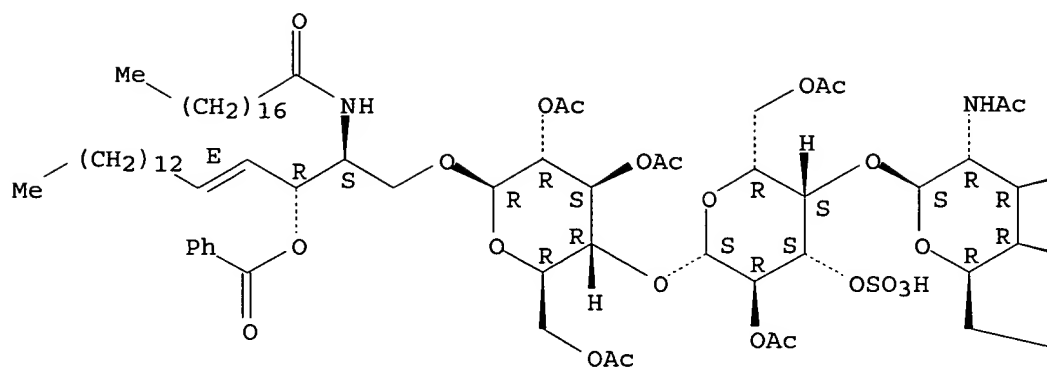
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxymethyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI)

MF C122 H169 N3 O51 S2 . 2 C5 H5 N

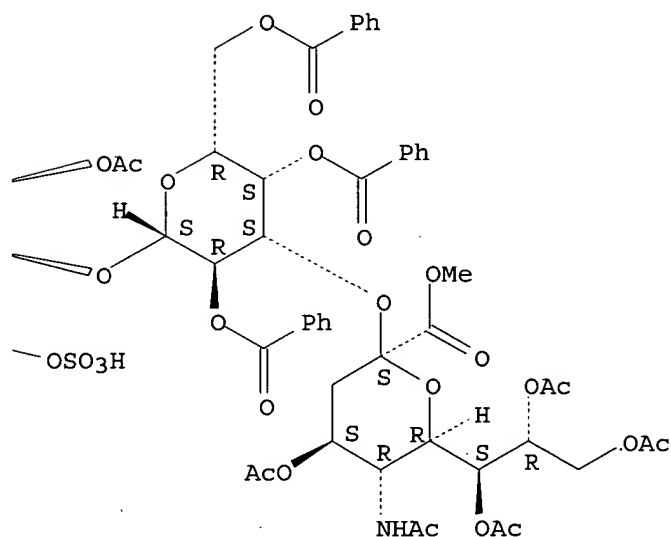
CM 1

Absolute stereochemistry.
 Double bond geometry as shown.

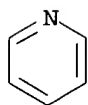
PAGE 1-A



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CM 2



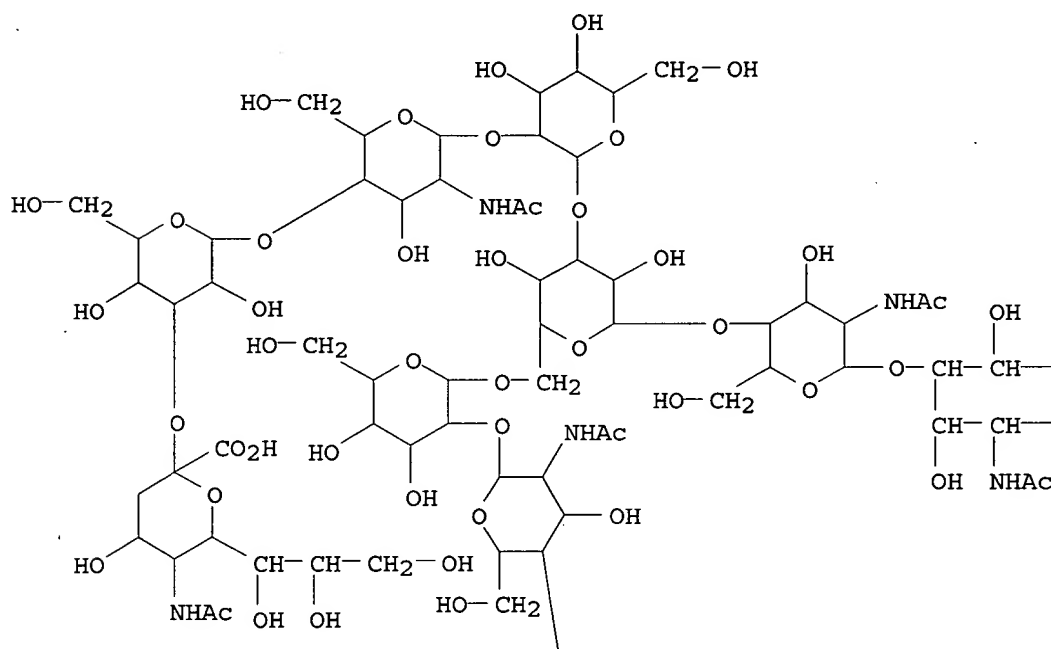
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-

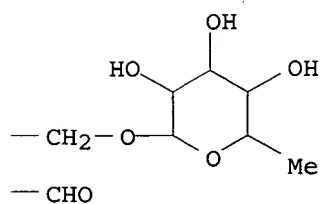
O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

MF C79 H131 N5 O61 S

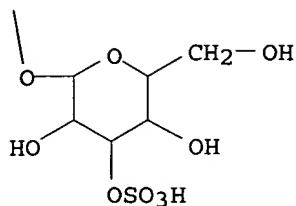
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

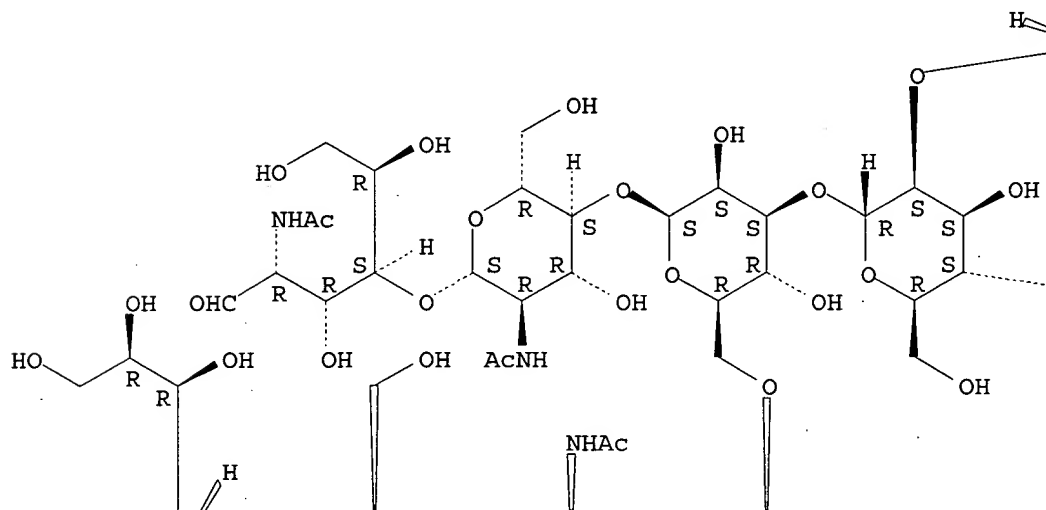
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

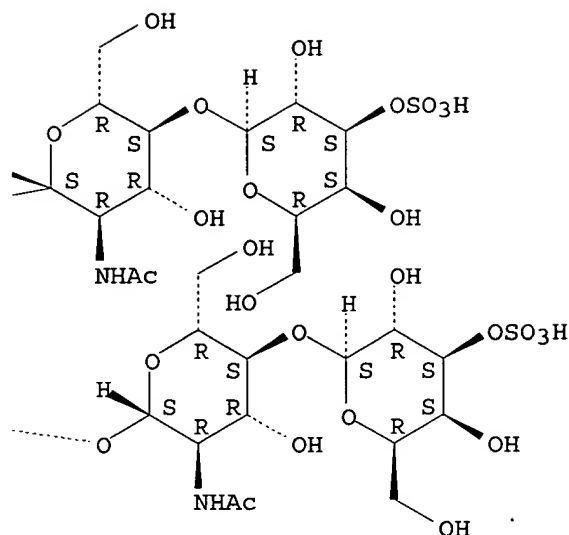
MF C87 H144 N6 O70 S2

Absolute stereochemistry.

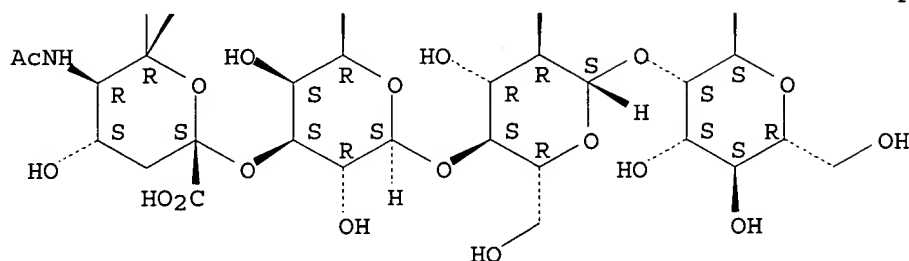
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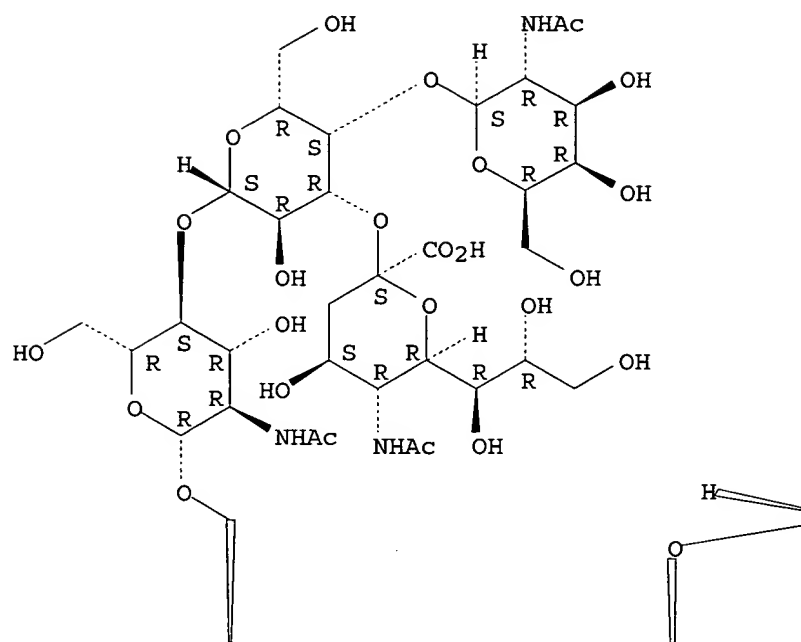


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

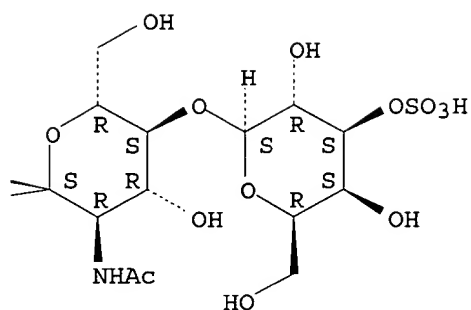
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)
 MF C109 H180 N8 O88 S3

Absolute stereochemistry.

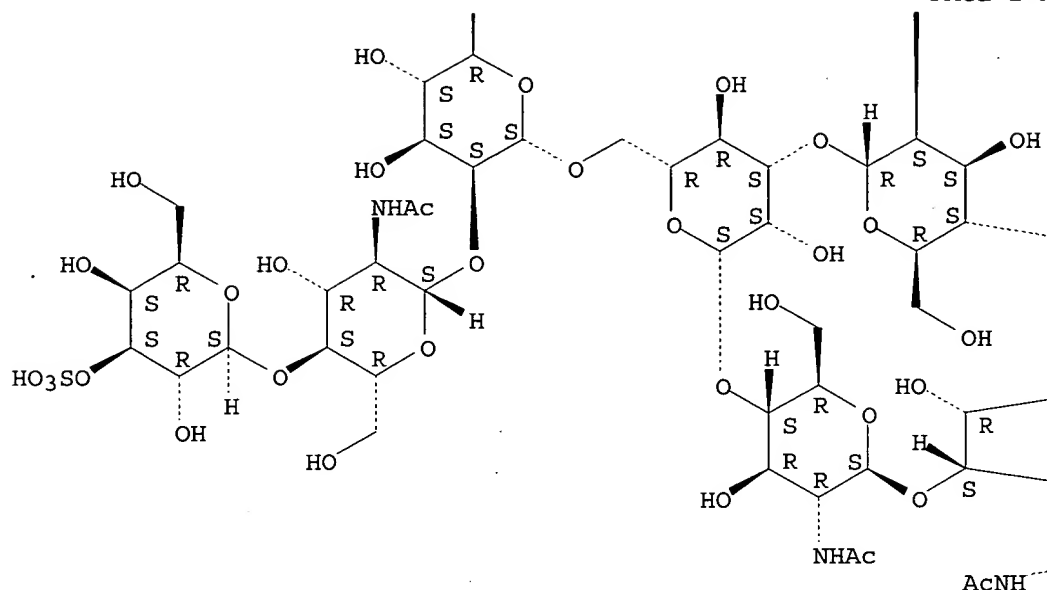
PAGE 1-A



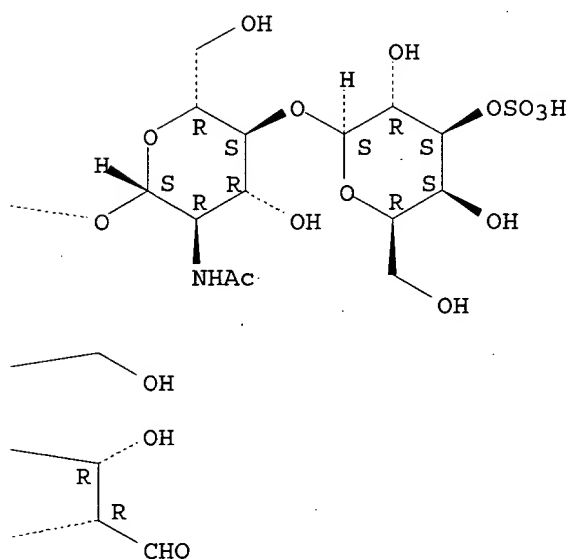
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PAGE 2-B



***PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

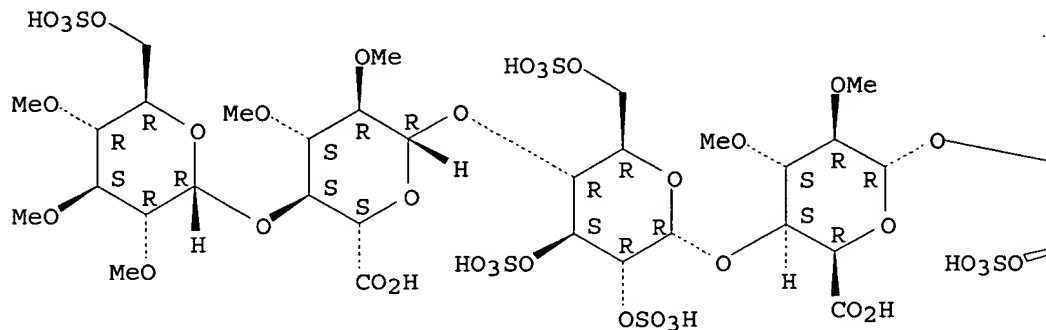
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-

dideoxy-4,8-di-O-methyl-1-[[[(phenylmethoxy)carbonyl]amino]-, 5-(hydrogen sulfate) (9CI)

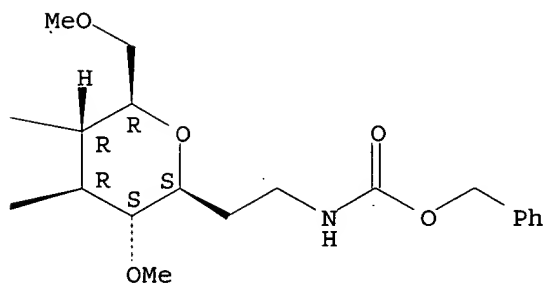
MF C49 H77 N O44 S5

Absolute stereochemistry.

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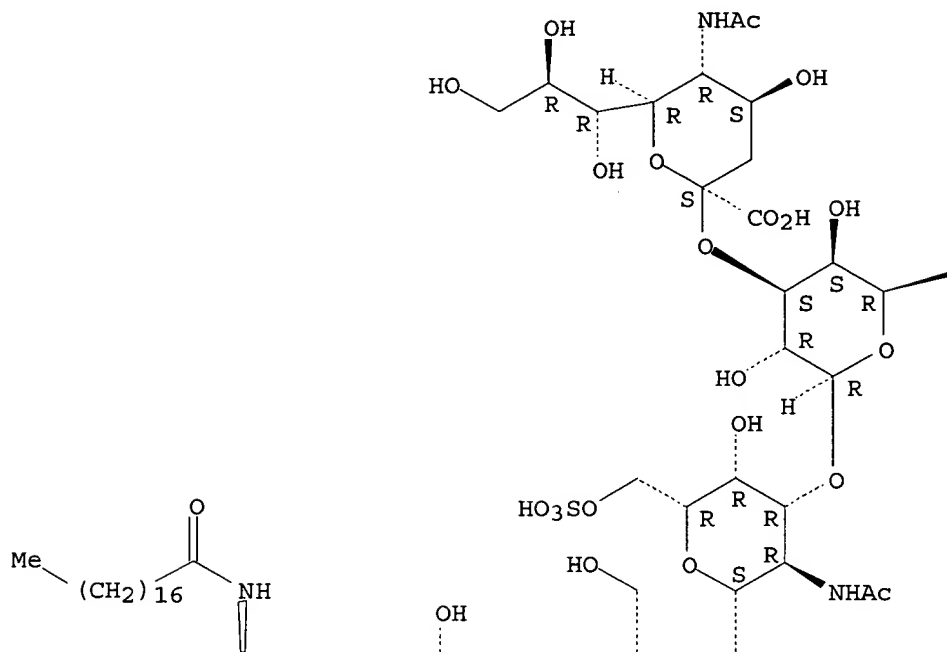


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

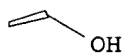
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI)
 MF C73 H131 N3 O37 S2 . 3 Na

Absolute stereochemistry.
 Double bond geometry as shown.

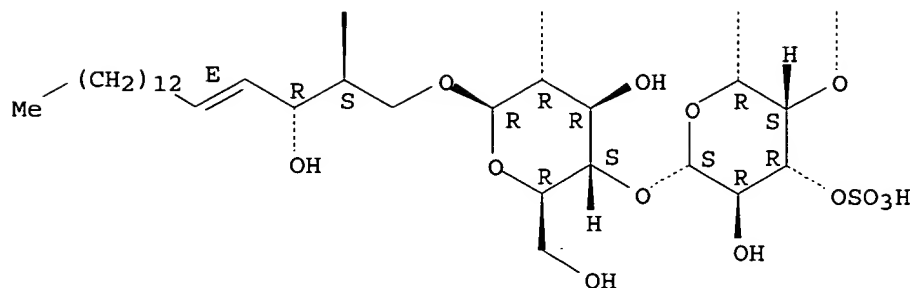
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PAGE 1-B



PAGE 2-A



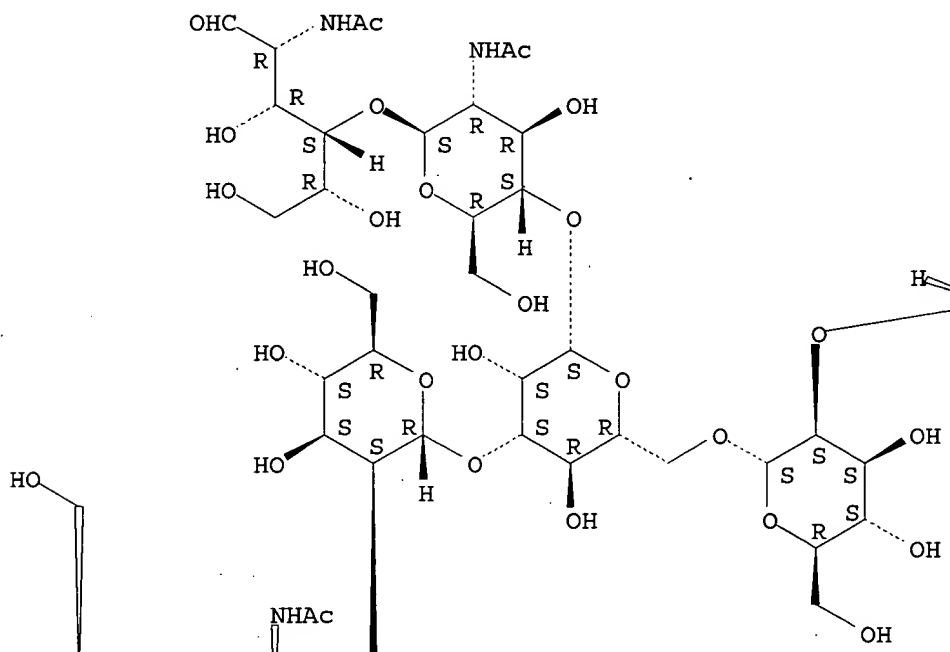
● 3 Na

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

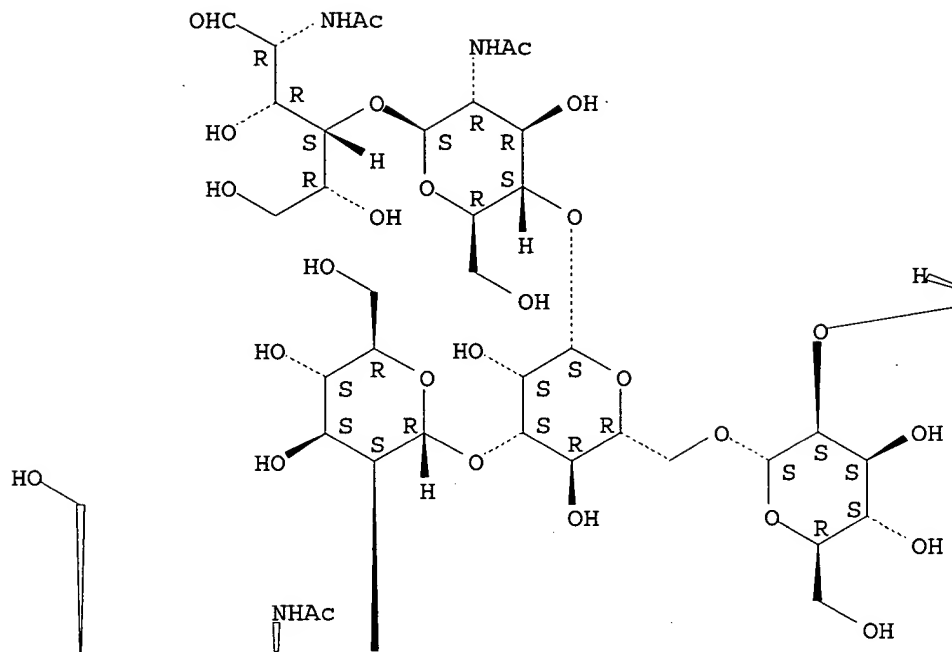
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-
 (1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-
 (1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-
 .alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-
 (1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-
 (1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-
 mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)
 MF C75 H124 N6 O57 S

Absolute stereochemistry.

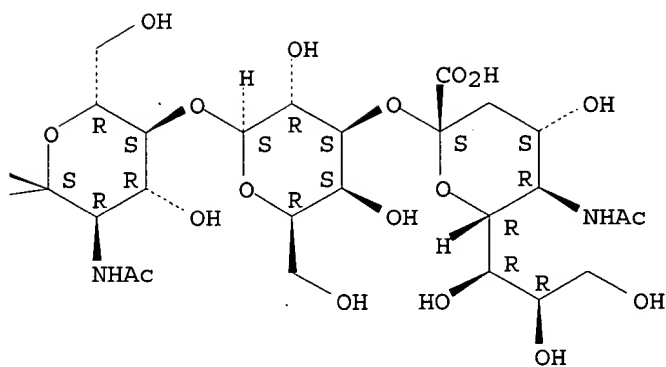
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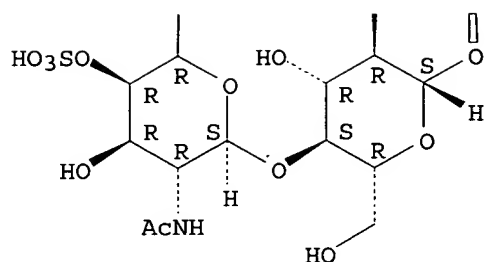
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PAGE 1-B



PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

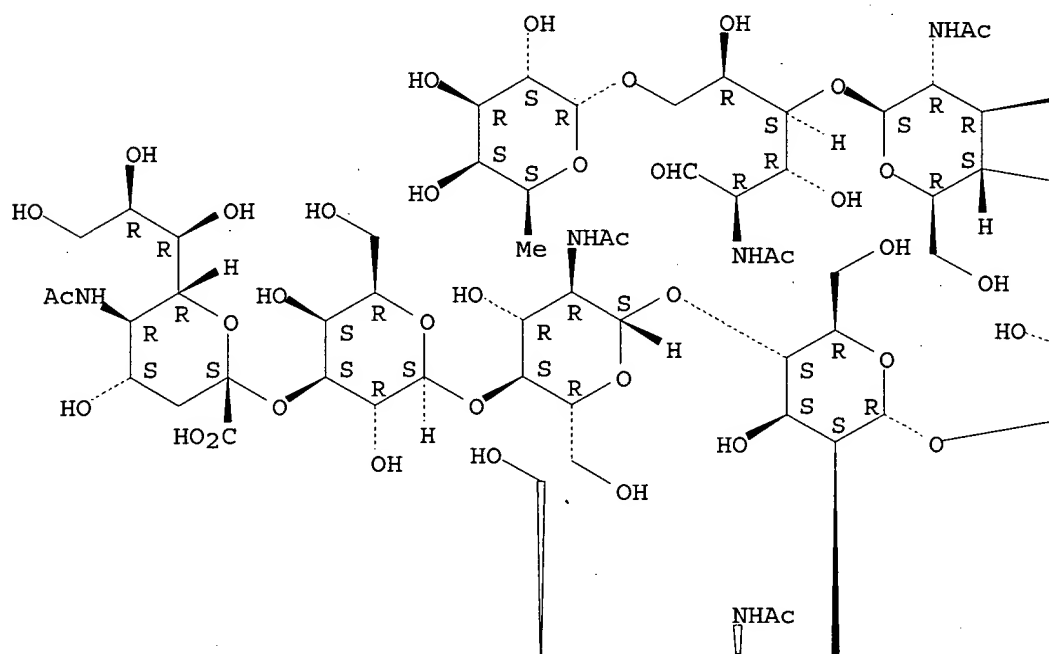
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

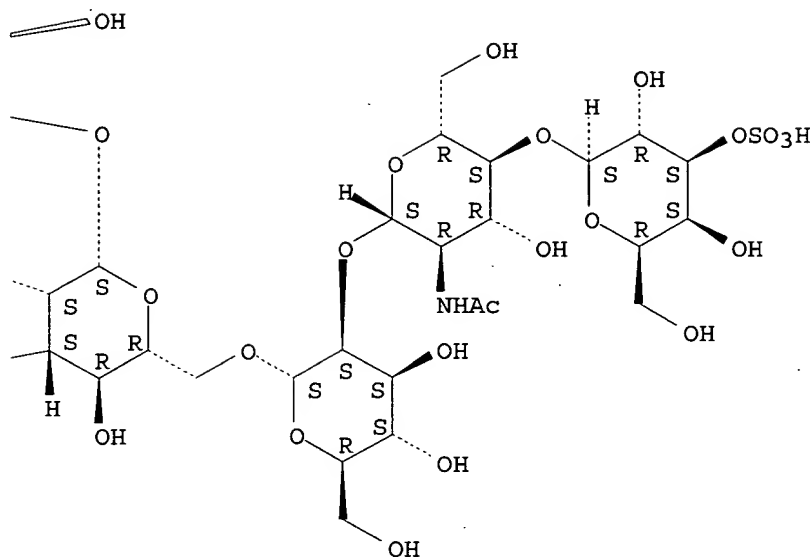
MF C93 H154 N6 O74 S2

Absolute stereochemistry.

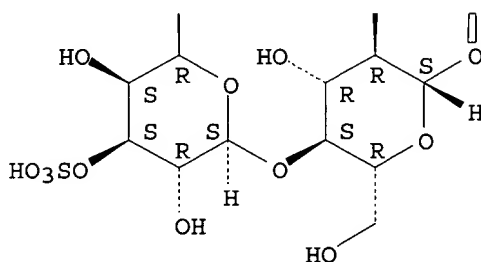
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

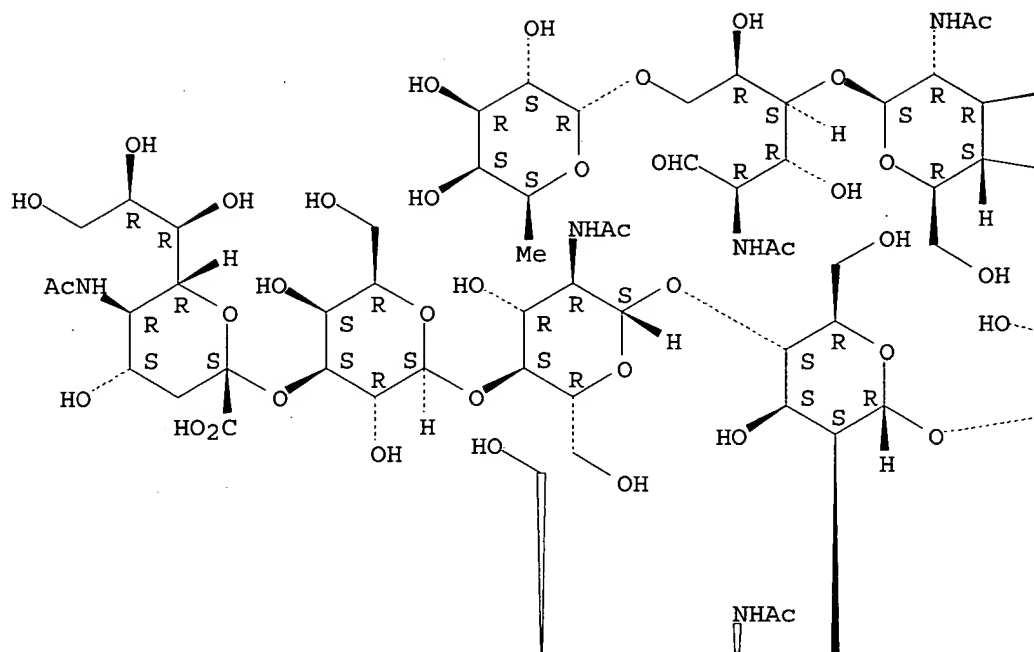
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

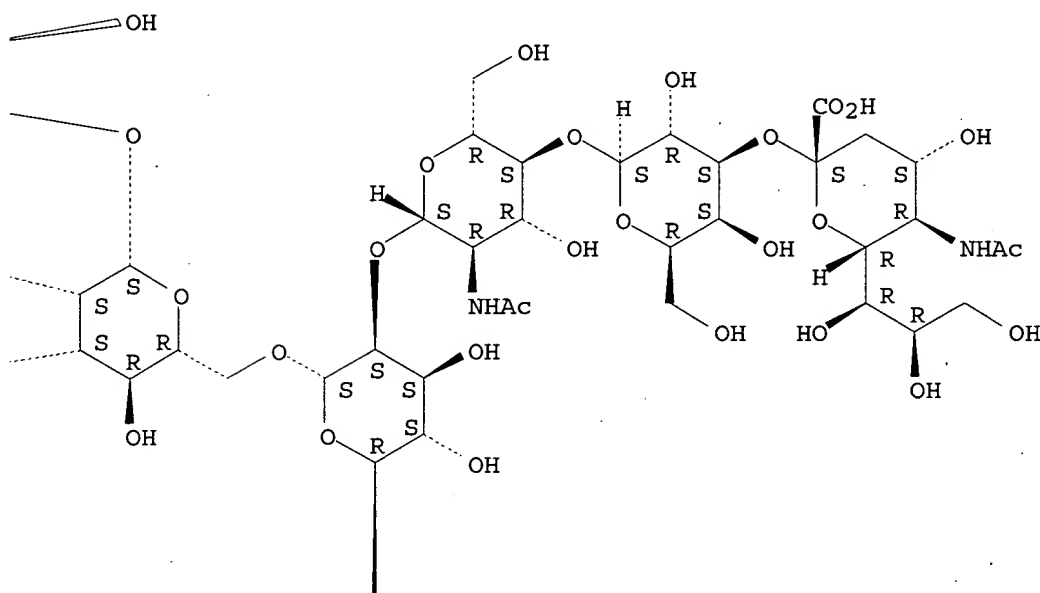
MF C129 H211 N9 O97 S

Absolute stereochemistry.

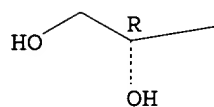
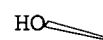
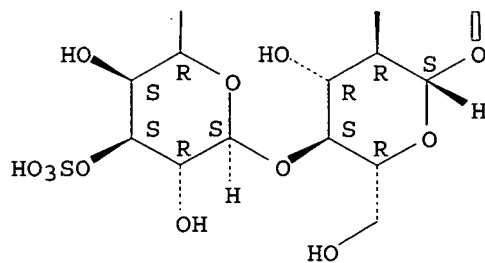
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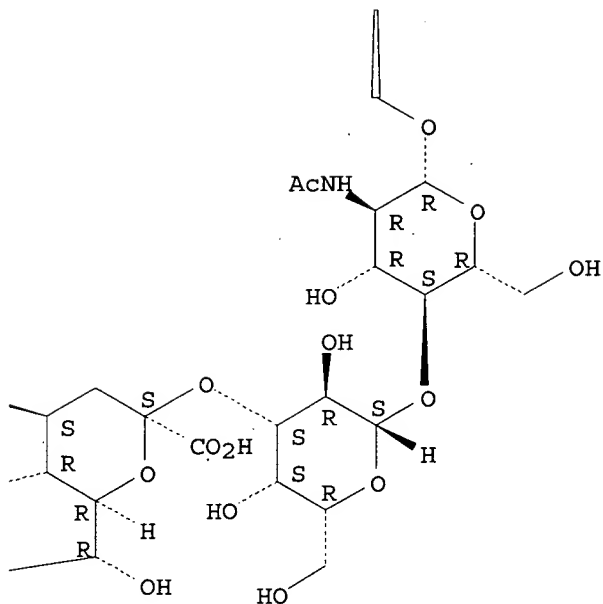
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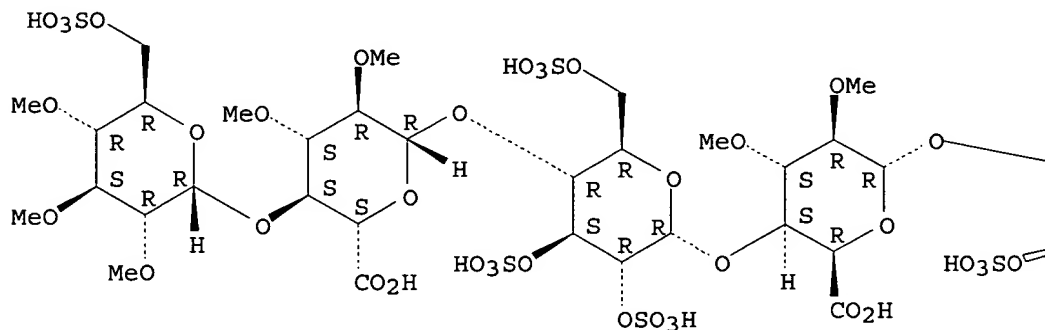


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

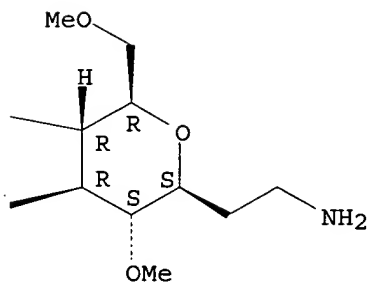
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-1-amino-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI)
 MF C41 H71 N O42 S5

Absolute stereochemistry.

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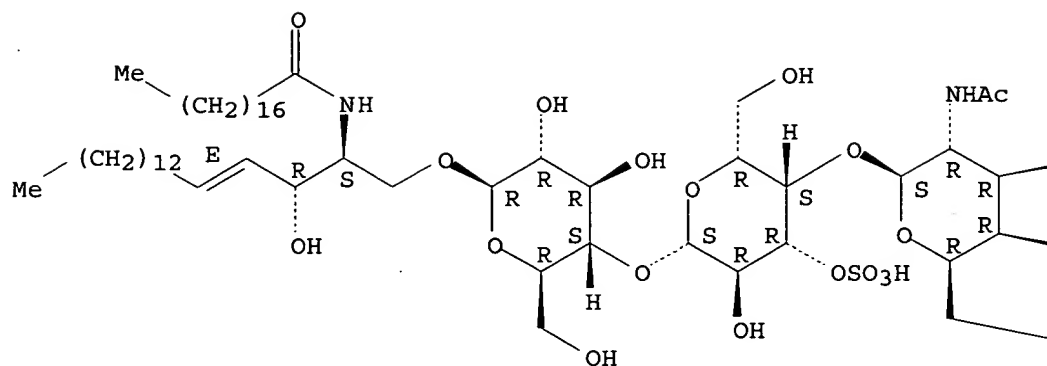


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI)
 MF C73 H131 N3 O37 S2 . 3 Na

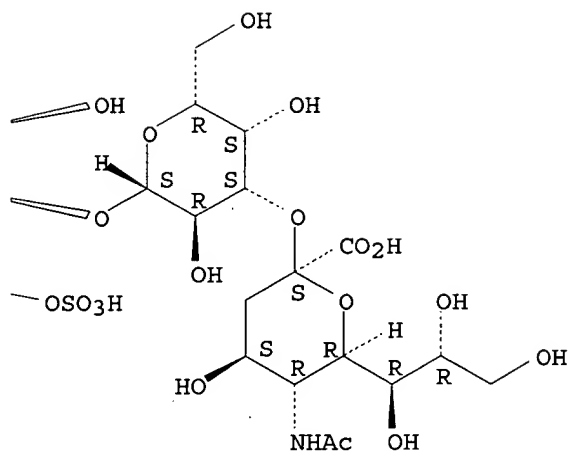
Absolute stereochemistry. Rotation (-).
 Double bond geometry as shown.

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● 3 Na

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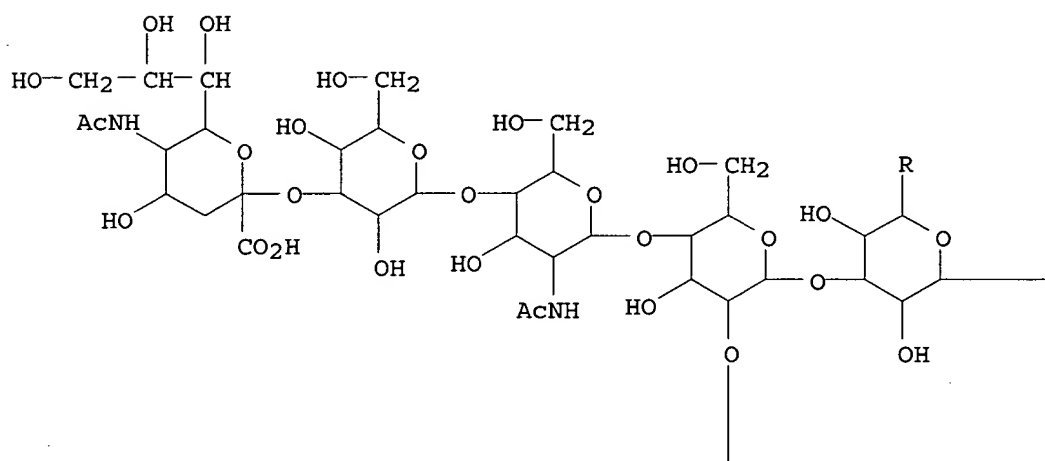
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-
 (1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-
 (1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-
 galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-

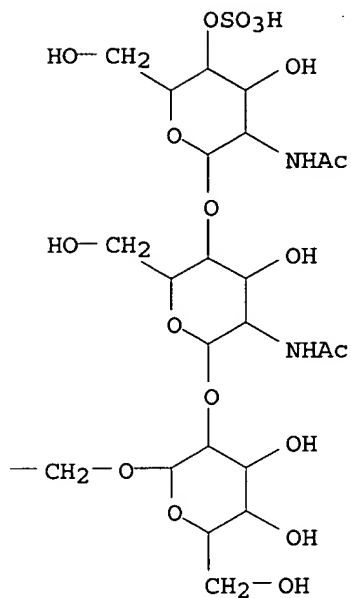
2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-
2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-
mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-
(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-
.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

MF C97 H160 N8 O74 S2

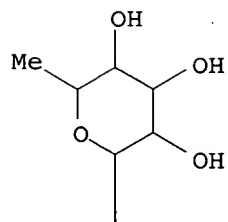
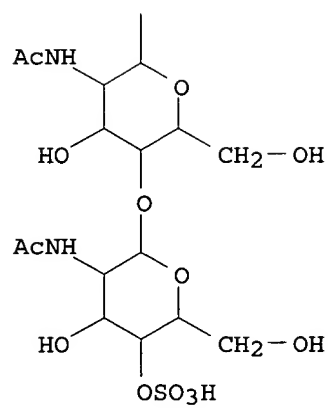
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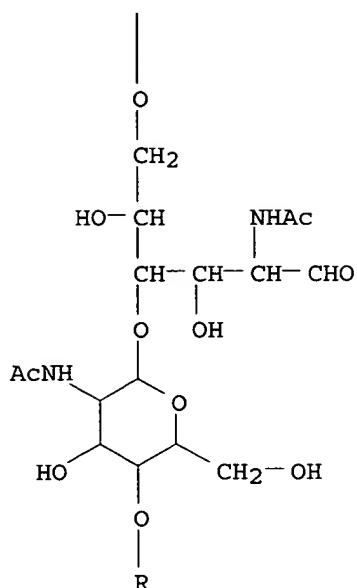
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

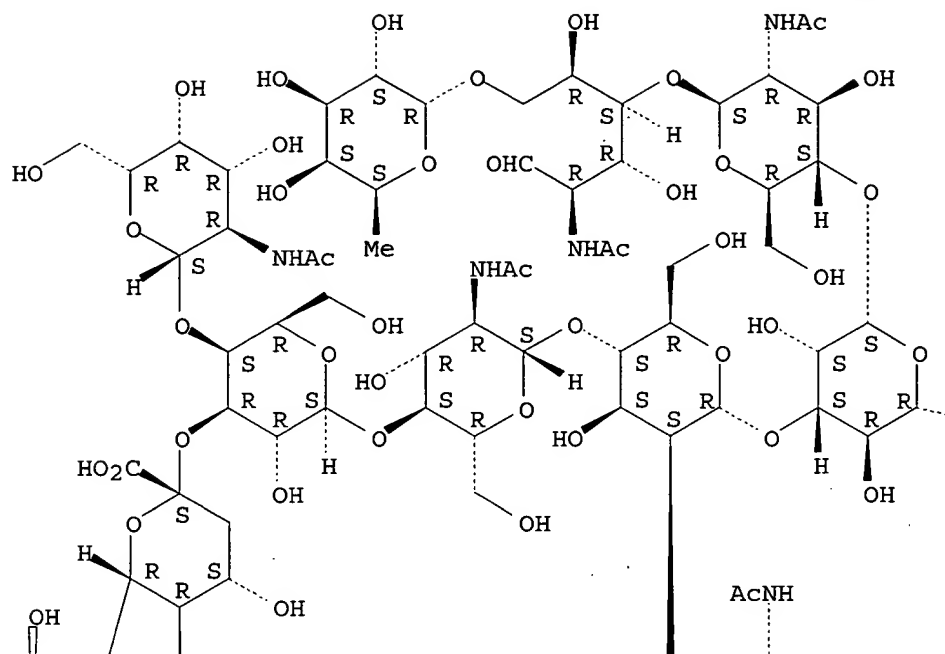
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

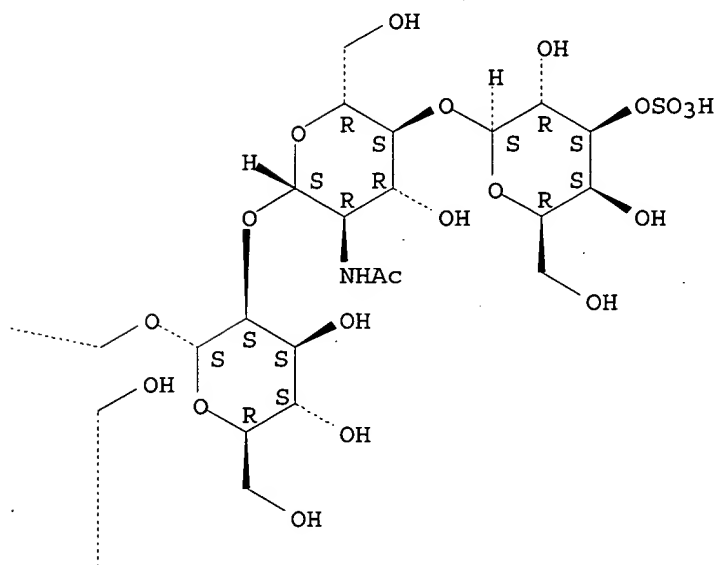
MF C101 H167 N7 O79 S2

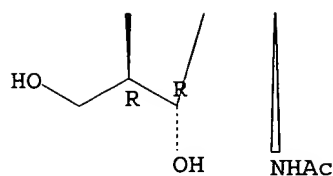
Absolute stereochemistry.

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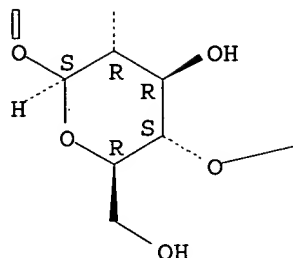


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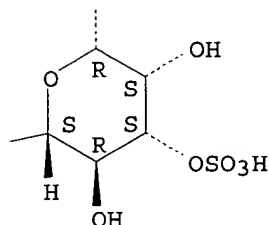




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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

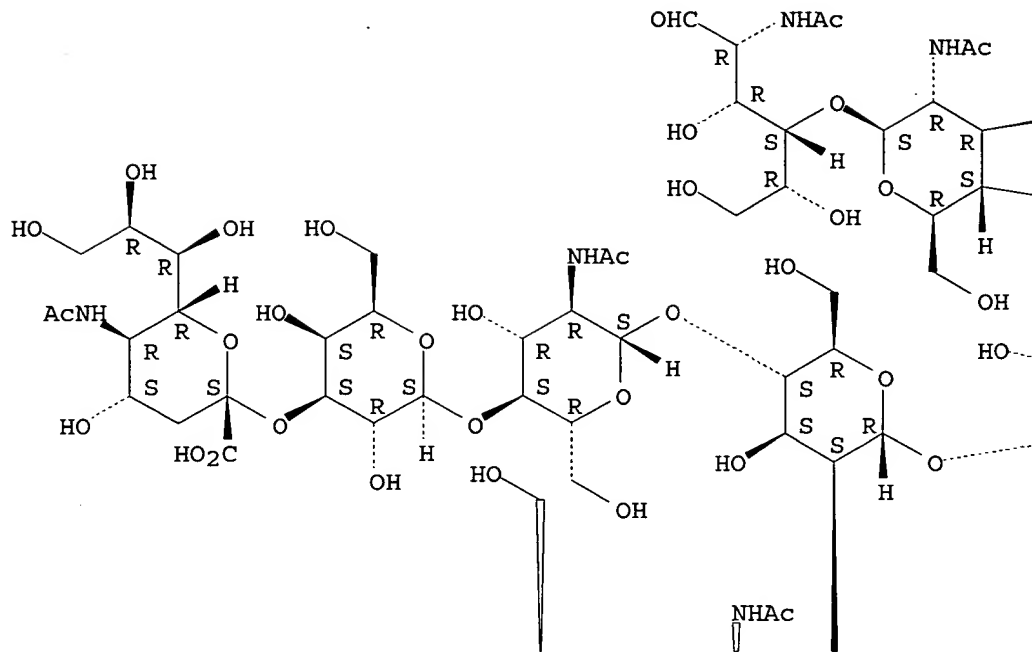
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

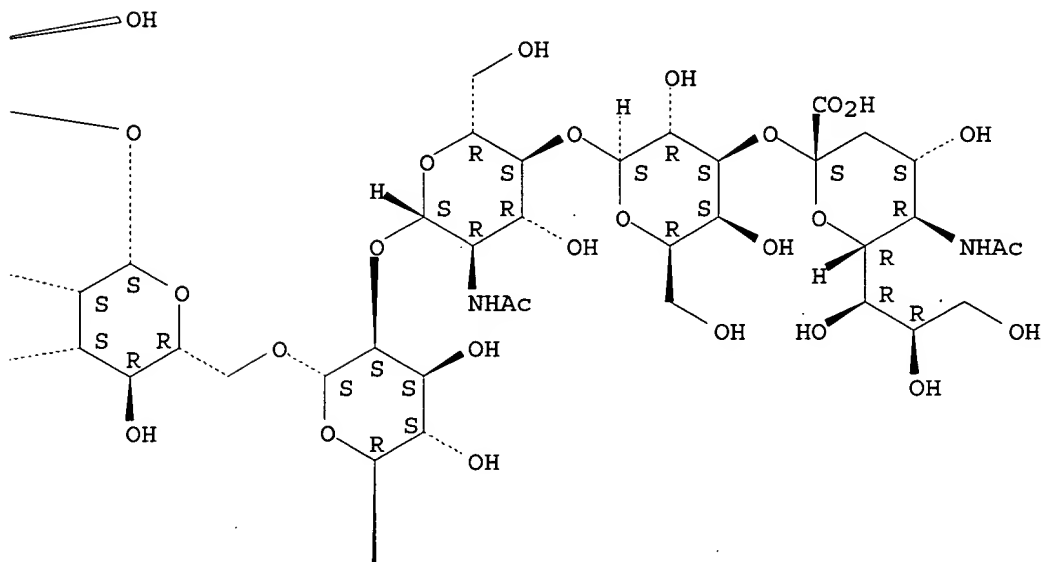
MF C123 H201 N9 O93 S

Absolute stereochemistry.

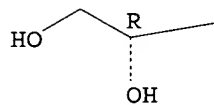
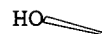
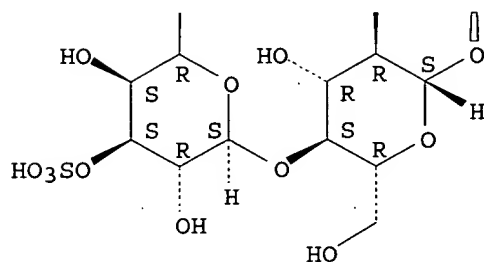
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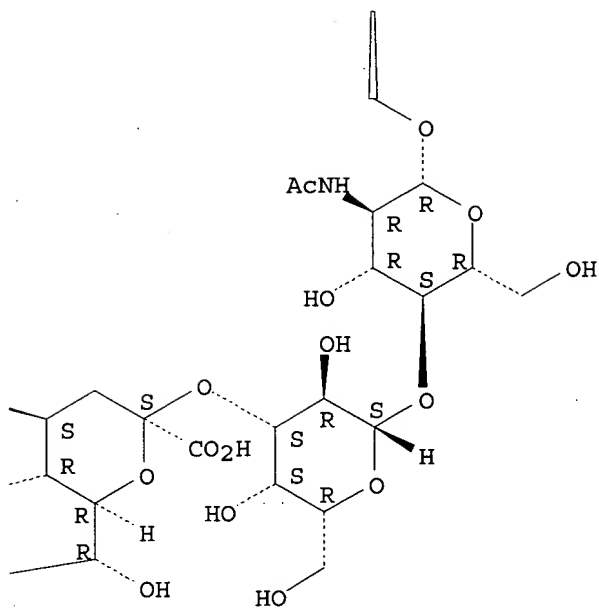
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

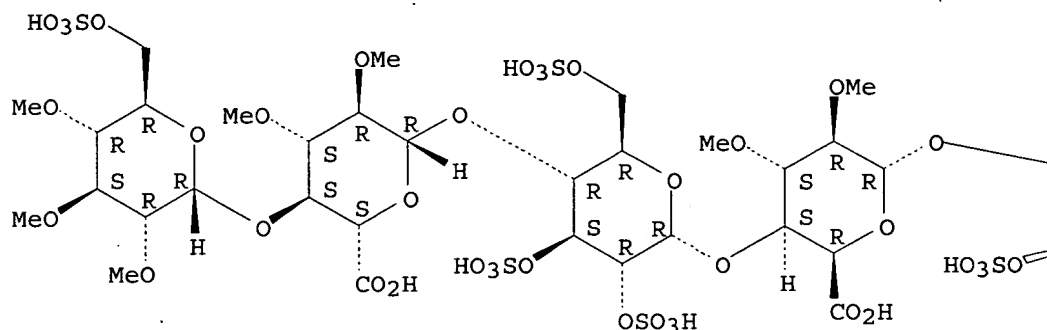
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-

glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-1-[[[(2R)-1-oxo-2,3-bis[[[phenylmethoxy)carbonyl]amino]propyl]amino]-, 5-(hydrogen sulfate) (9CI)

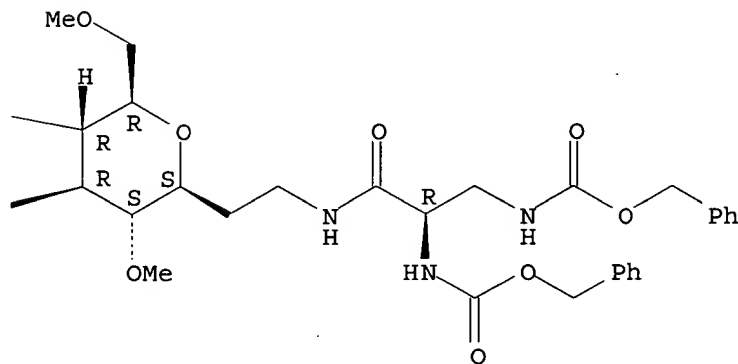
MF C60 H89 N3 O47 S5

Absolute stereochemistry.

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IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI)

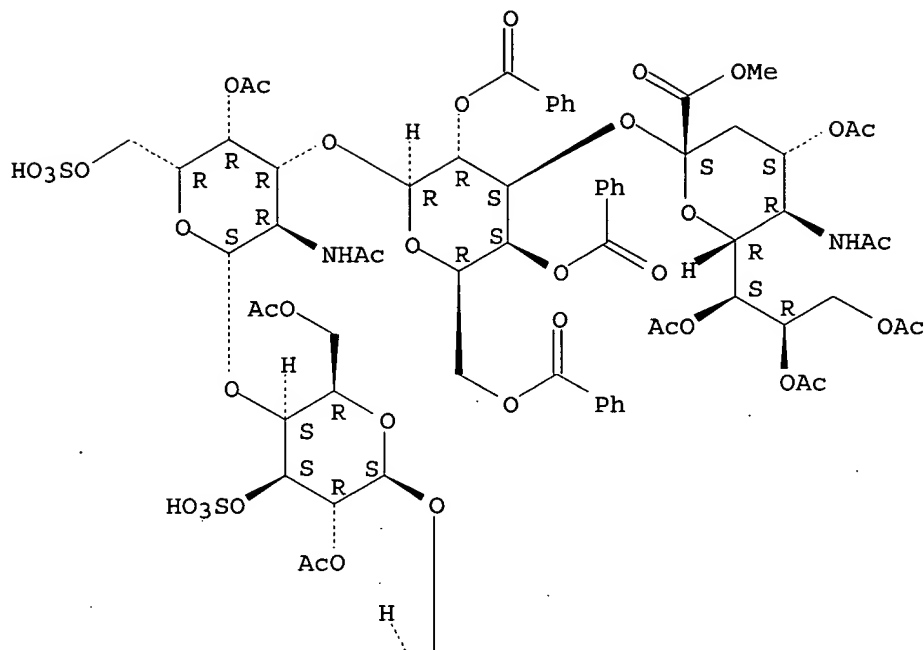
MF C122 H169 N3 O51 S2

CI COM

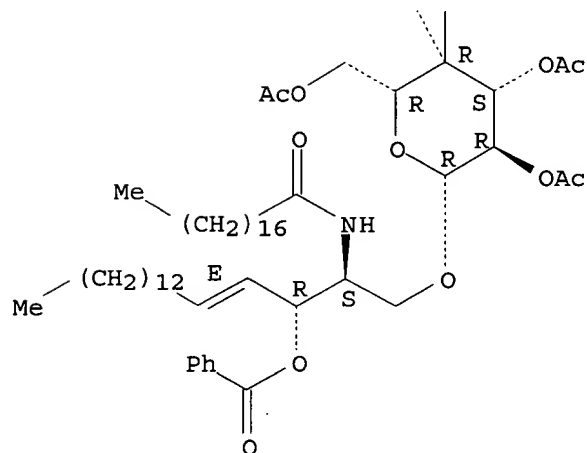
Absolute stereochemistry.

Double bond geometry as shown.

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

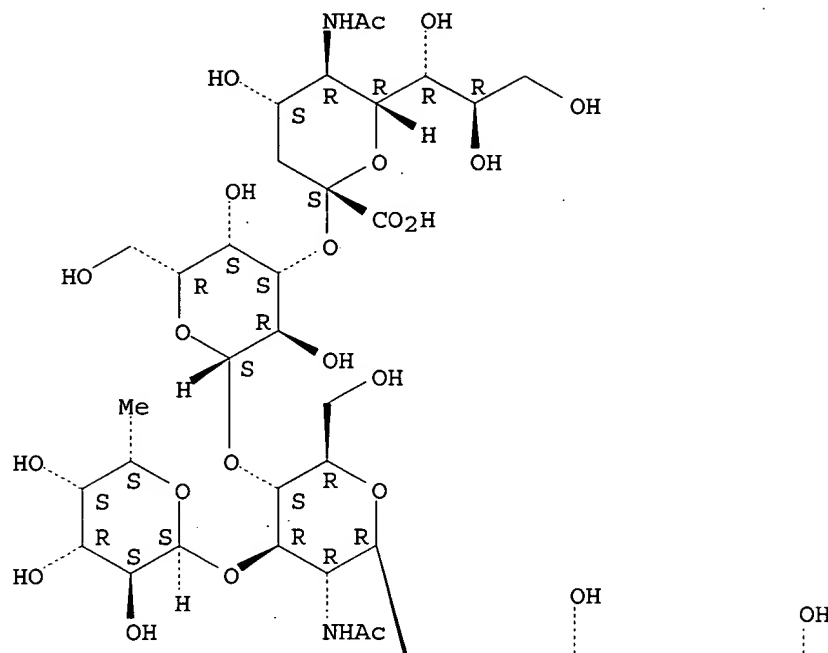
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN .alpha.-D-Galactopyranoside, methyl O-(N-acetyl-.alpha.-neuraminosyl)-
 (2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[O-6-deoxy-.alpha.-
 L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.6)-O-[3-O-sulfo-.beta.-D-galactopyranosyl-
 (1.fwdarw.3)]-2-(acetylamino)-2-deoxy- (9CI)

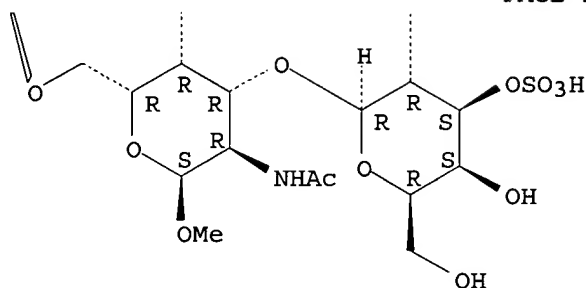
MF C46 H77 N3 O36 S
CI COM

Absolute stereochemistry. Rotation (+).

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

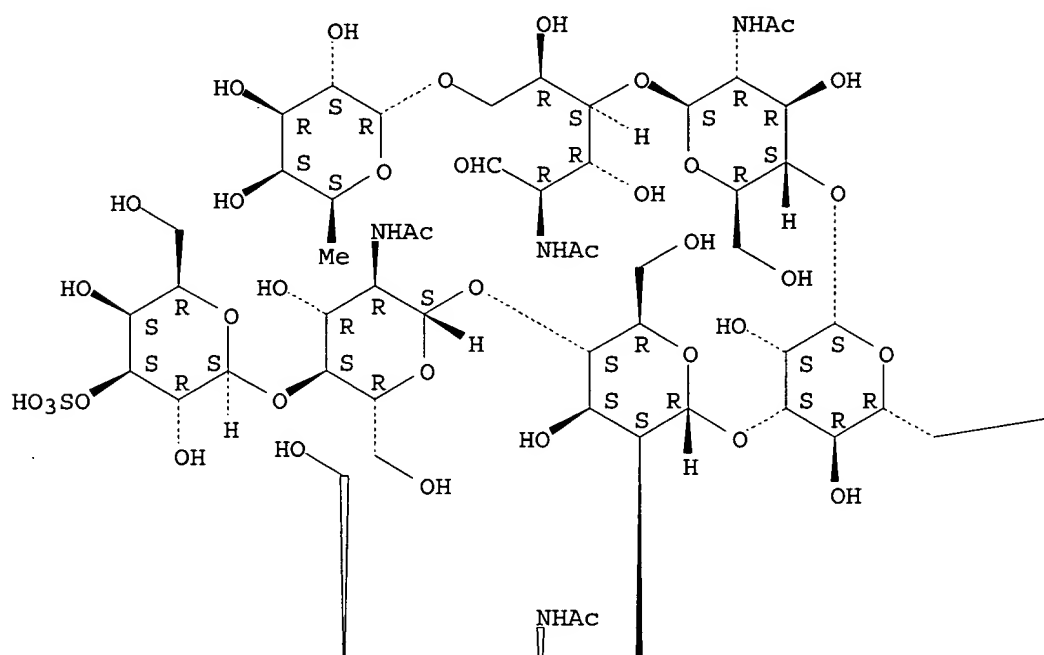
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-

galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

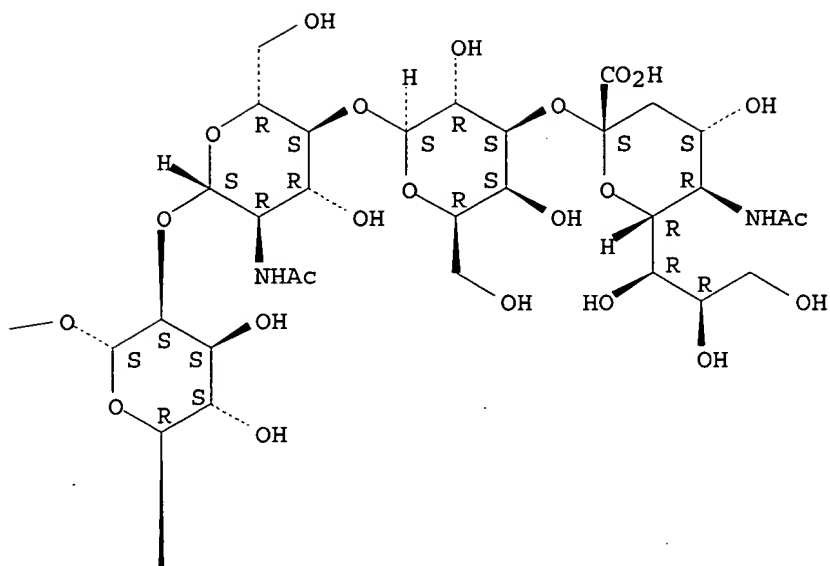
MF C129 H211 N9 O97 S

Absolute stereochemistry.

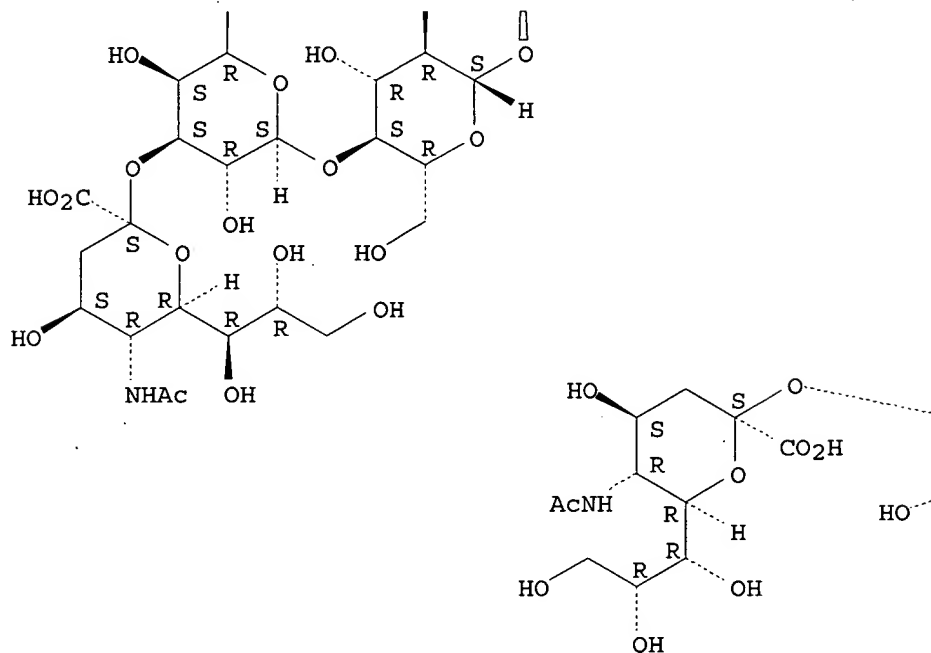
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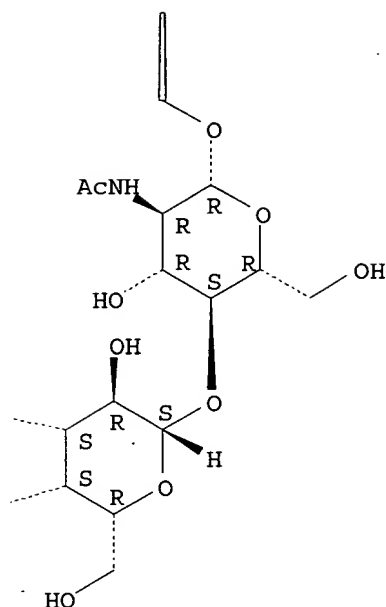
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

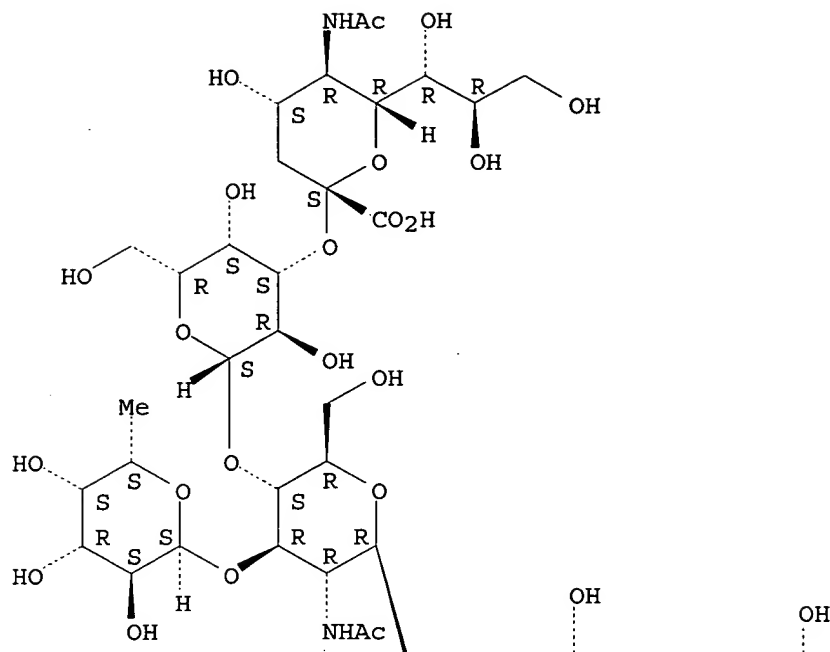
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN .alpha.-D-Galactopyranoside, methyl O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy-, monosodium salt (9CI)

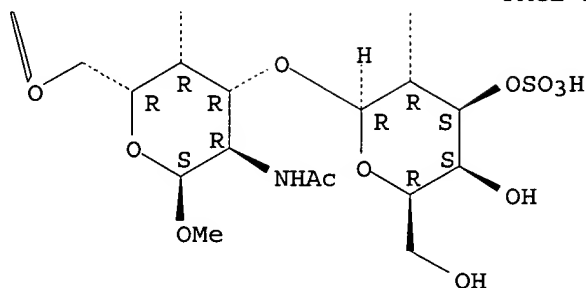
MF C46 H77 N3 O36 S . Na

Absolute stereochemistry. Rotation (+).

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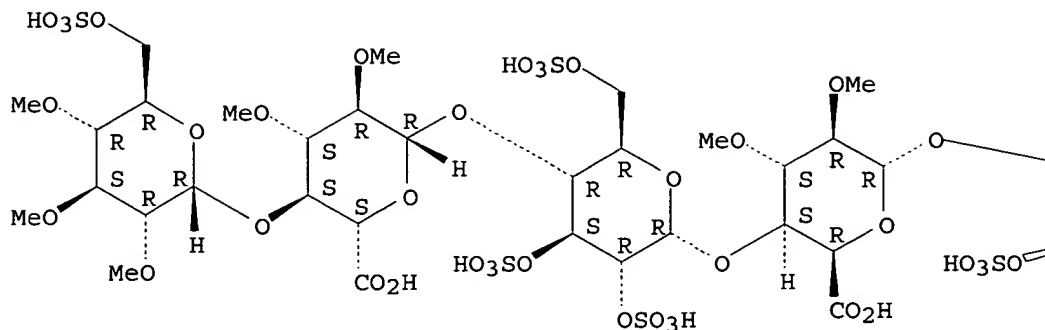


● Na

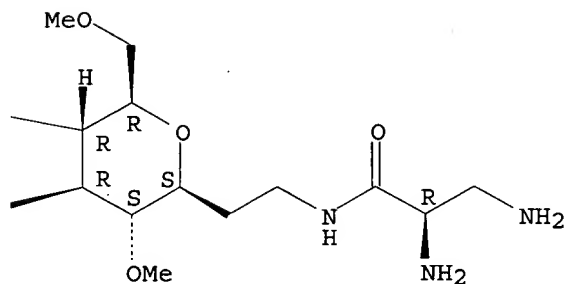
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-1-[[(2R)-2,3-diamino-1-oxopropyl]amino]-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI)
 MF C44 H77 N3 O43 S5

Absolute stereochemistry.

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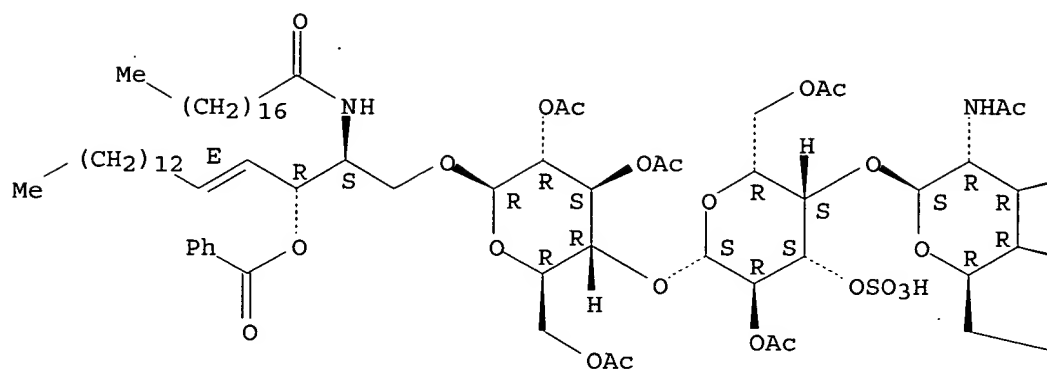


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

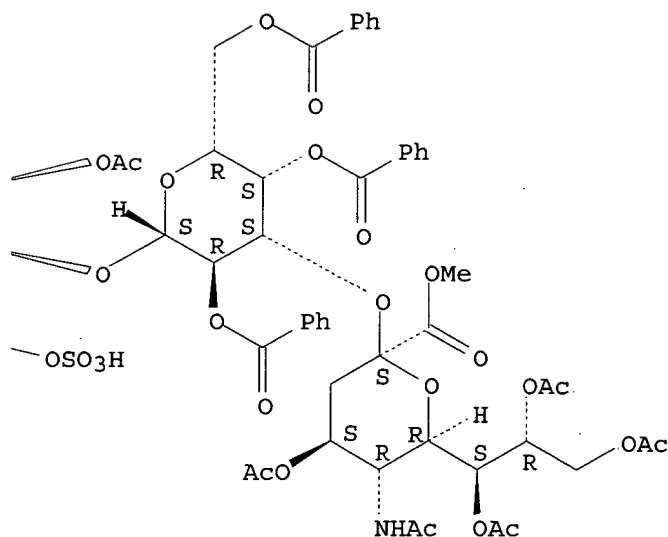
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI)
 MF C122 H169 N3 O51 S2
 CI COM

Absolute stereochemistry.
 Double bond geometry as shown.

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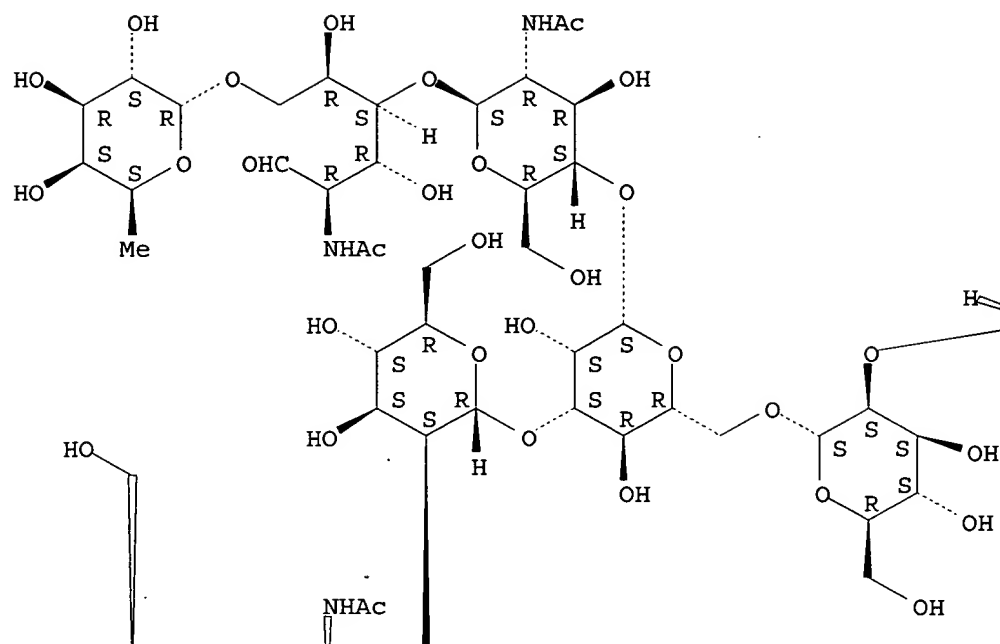


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

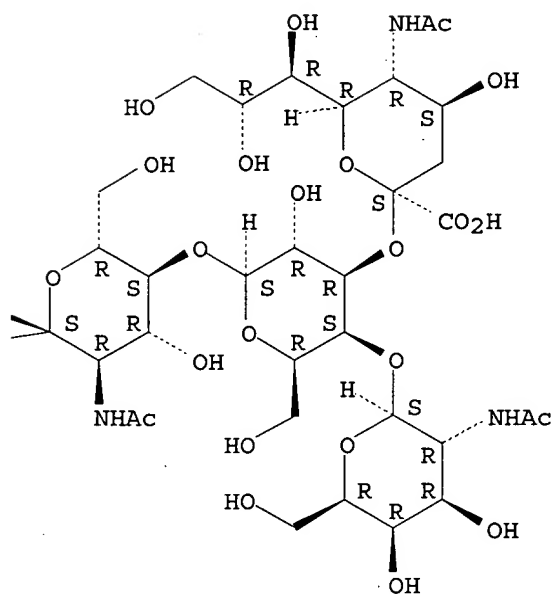
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)
 MF C89 H147 N7 O66 S

Absolute stereochemistry.

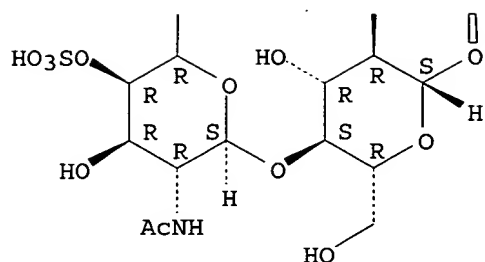
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

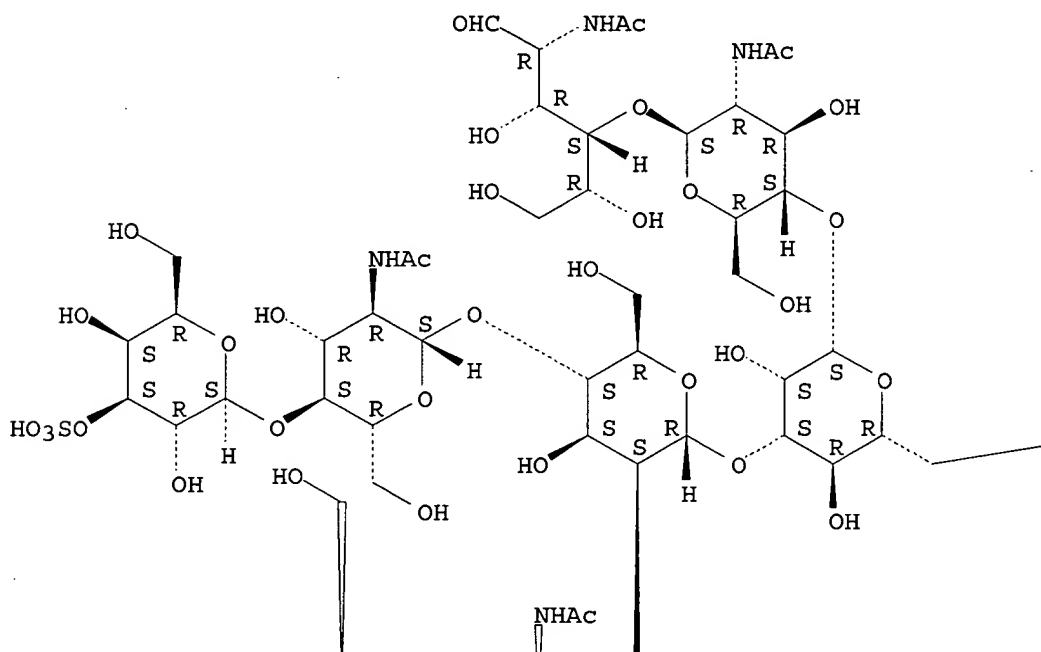
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

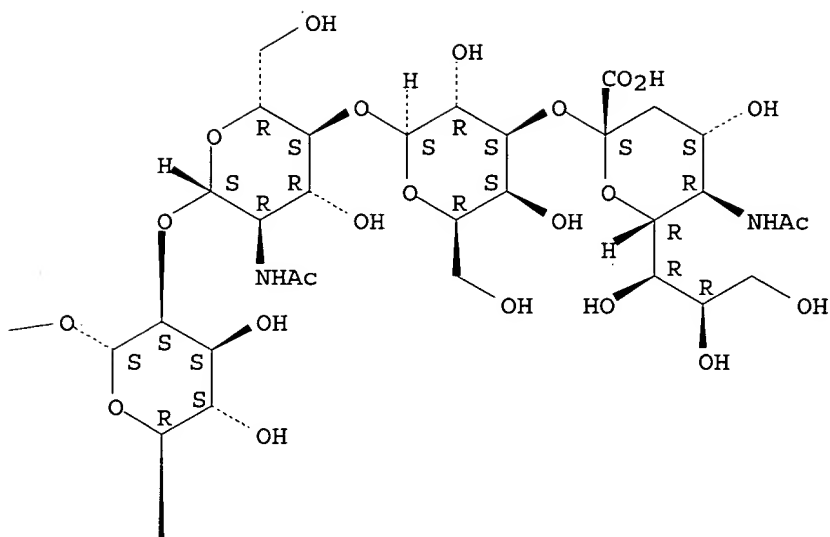
MF C123 H201 N9 O93 S

Absolute stereochemistry.

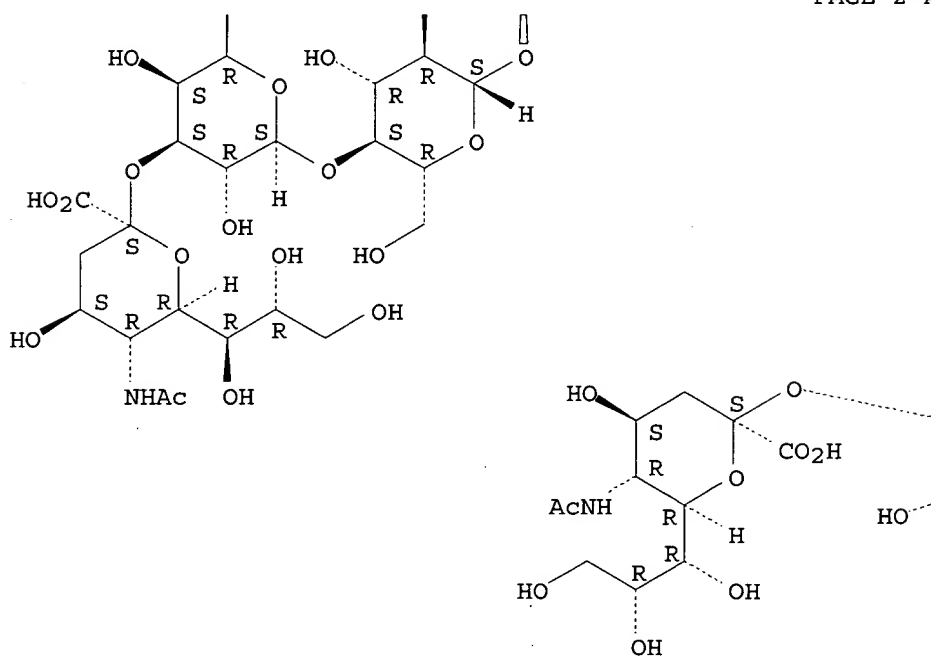
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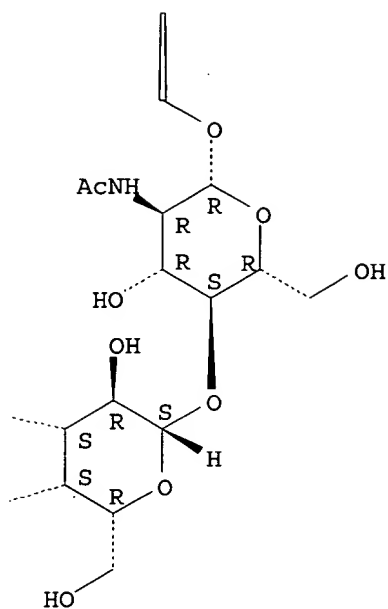
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT